GWALIOR
TO-DAY

GOVERNMENT OF INDIA

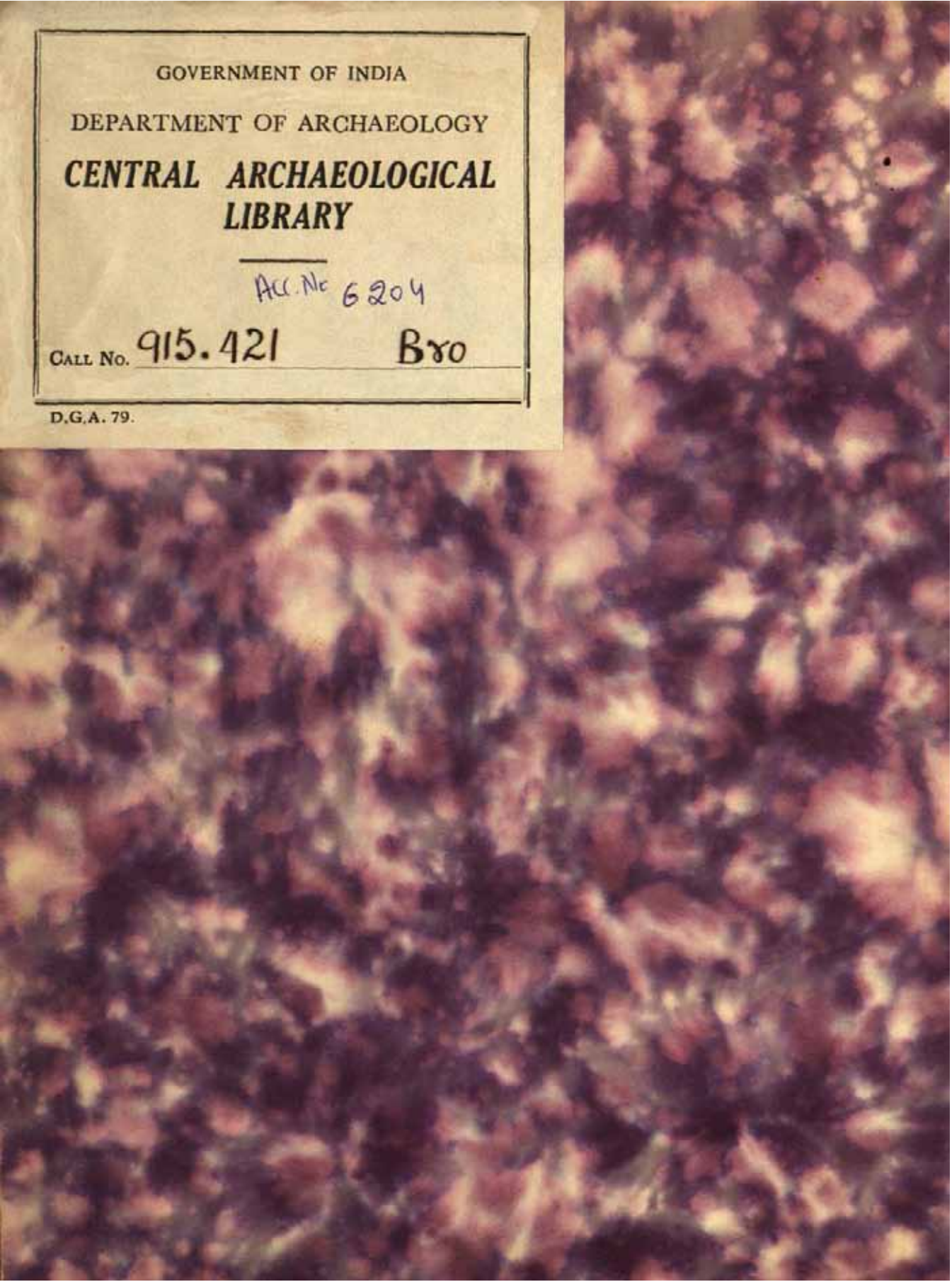
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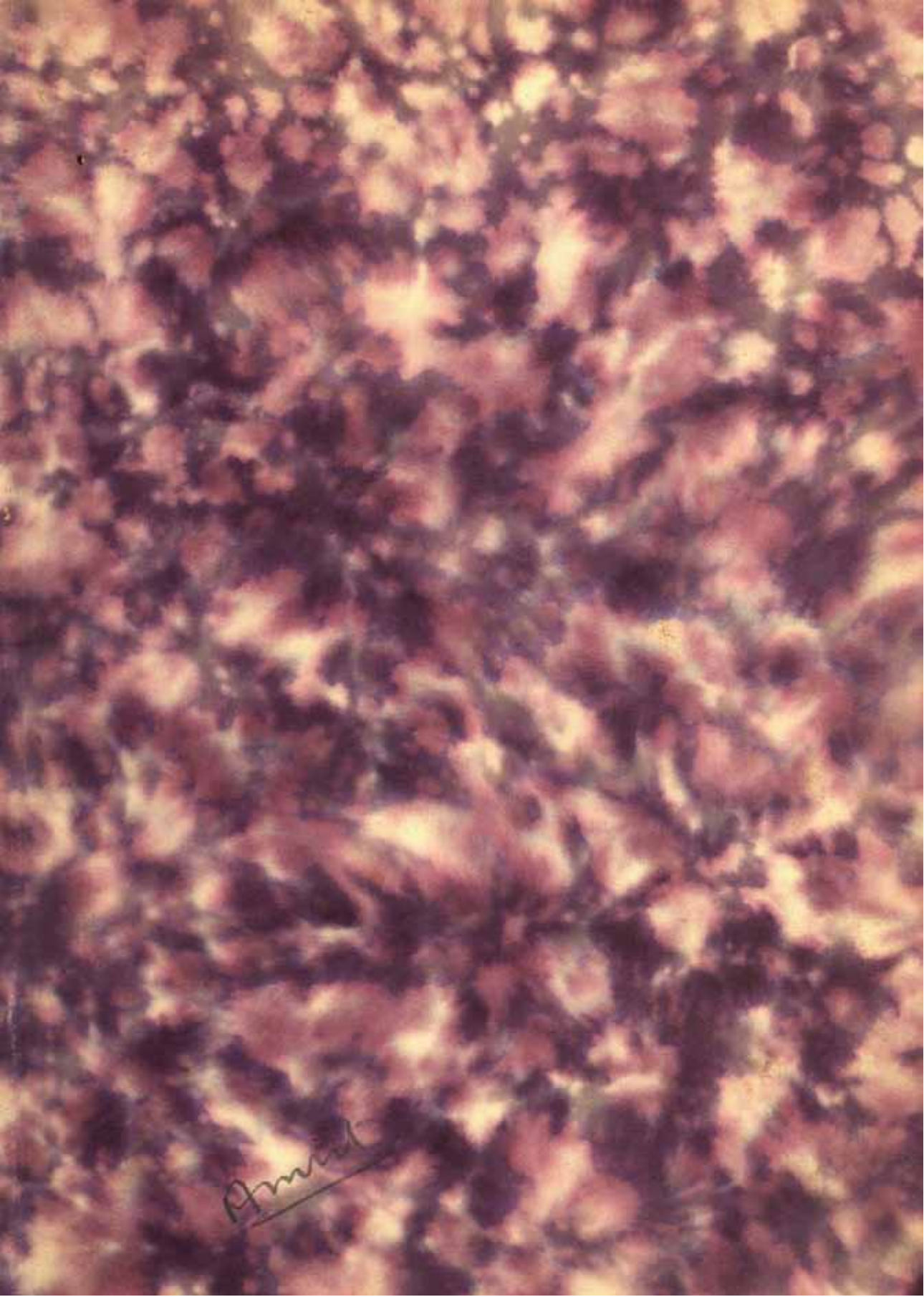
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GWALIOR
TODAY

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PREFACE

"GWALIOR TODAY" without an estimate of His Highness the Maharaja Scindia would be a narrative of Hamlet without mention of the Prince of Denmark.

The story of "Gwalior Today" and yesterday is closely and inextricably linked up with the Royal House, and it is only appropriate that the book should start with a short sketch of the Ruler.

Born on 26th June, 1916, His Highness ascended the Throne in the year 1925 on the death of his illustrious father and assumed charge of his noble heritage on the 2nd November 1936.

It has been the tradition of the Gwalior rulers that they are soldiers first and kings afterwards and His late Highness was always anxious that his son should be a proficient soldier so that the martial traditions of the dynasty might not wane. It was with this idea in view that the enrolment of the young Prince as a private on one rupee per month in the Maharani's Own Infantry was announced by a Government Gazette notification in the year 1920. Thus His Highness' military career began at the age of four.

When his training in the administrative departments was taken in hand His Highness learnt theoretically and practically the work of the Revenue Department beginning with surveying and map-making. Next he learnt settlement operations at Lyallpur in the Punjab and from there proceeded to Poona for general training in police and judicial work. He also visited all the important institutions in Mysore State. His Highness' administrative training has been exhaustive and he has shown a remarkable grasp of matters relating to the several departments of the State.

In his tours in the State his one object has always been to know his people and familiarise himself with the existing administrative machinery. During his visits to other States he has spent much time in a comparative study of administrative systems and institutions there with a view to making improvements where necessary in his own domains. Thus when His Highness came

to occupy the Throne he was not only fully equipped, but was seasoned in all branches of administration and had a brilliant record of achievements.

As a Ruler His Highness is a stern taskmaster, requiring an unremitting devotion to duty, like his father, and is passionately devoted to his subjects, exerting every nerve to enhance their welfare.

As a man and as a friend he is simple, courteous, affectionate and sincere. The wanton and profligate ostentation which is considered to be the mark of an oriental prince, is totally absent in His Highness' life. In the midst of much extravagance which even the smallest among the Princes considers essential for the maintenance of their dignity the moderation of the Gwalior Ruler is an outstanding exception and an example worthy to be followed by others. He knows the vital difference between necessary pomp in the life of a ruler and the vulgar display of wealth. The inner richness of the Maharaja is the result of his liberal education and an inherited quality from his illustrious father.

His Highness is a lover of art and refinement. He is politely stern when transacting official business but when off duty he mixes with all with perfect freedom, radiating a spirit of laughter and good-will.

His Highness' solicitude for his subjects can best be understood from the message he gave to his people after his investiture. His Highness said, " For the future my care will be to improve in every way the conditions of life of the poorest of my people, to ensure that justice is dispensed to my subjects independently and without delay, to protect them by the efficiency of the police, to place within the easy reach of all the advantages of a good education and medical relief and to develop in every way, the trade and industries of my State.

" My great desire is that my people should know me as their friend and I hope, after a short time, to travel throughout my whole State so that I may get to know my people in person, may hear of their difficulties and their wants, and may learn by seeing them in their homes and at their work how best I and my Government may help them to prosperity and happiness." That is a message worthy of a great Ruler. The sympathy and love enshrined in his heart for his people cannot find a better expression.

This idea of a ruler working from a properly equipped office is no pose. The reforms and appointments which the Maharaja Scindia has made since his accession to power prove that conclusively. He has not had a particularly easy task, because after more than a decade of regency rule, during which the lines of policy laid down by His late Highness were followed as far as

possible, it became evident that a good deal of fresh air would be beneficial to the affairs of the State. It was at this point that the difficulties arose.

One of the services which the Durbar have spring cleaned thoroughly is the State Police. From a better type of recruit (they must be literate), to smarter uniforms, better arms and better living conditions, changes have been introduced and have made a great deal of difference to efficiency. Major crime in the State has appreciably decreased.

The Army, schools (a new vocational education policy here), public health (every district town to have electricity and pure water supplies), trade encouragement, rural uplift, co-operation, roads, irrigation, facilities for air services—all these have received a fillip from him. And there are many more departments of State which there is no space to mention in this preface.

At his Birthday Durbar in June 1939 the Maharaja Scindia announced a new constitution for the State—a constitution which will make it one of the most democratic units in the country. In doing this he has moved with the times—developing the liberal plan indicated by his father, the late Maharaja Madhav Rao, who held that a ruler should not wait for his people to agitate for more power, but should hand it over as they become capable of using it. As a result, the two representative bodies, the Majlis-i-Am and the Majlis-i-Kanoon, were set up many years ago. These bodies have now been widened to become the Praja Sabha and the Samant Sabha and their part in the administration of the State has been greatly increased.

In the midst of these epoch-making developments came the outbreak of war. The virile history of Gwalior rings out in the telegram sent by His Highness to the Viceroy: "In view of the tense political situation and in keeping with the traditions of my House and my deep attachment to the person and throne of His Imperial Majesty the King-Emperor, I deem it my sacred duty and proud privilege to place my troops, my personal services and all my resources at the disposal of His Imperial Majesty the King-Emperor whenever required."

In his message to the people of Gwalior, the Maharaja Scindia said: "In this hour of trial I do hope that my beloved subjects will stand united, firm and bold and will whole-heartedly support my action, especially because it is actuated by the highest motives and resolutely attached to a policy of prudence, wisdom and moderation."

Such an extraordinary concatenation of events in the first three years of His Highness' reign would appear to augur a future which will be remarkable even in the by no means humdrum annals of Gwalior.

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THE STORY OF GWALIOR

GEOGRAPHY OF THE STATE

GWALIOR, the largest Treaty State in Central India, has an area of 26,397 square miles (3,26,69,768 Gwalior bighas or 16,815,120 acres), with a population of 3,523,070 (1931 Census) and an annual revenue of about Rs. 2½ crores.

The territory which lies in several detached blocks in Central India and Rajputana can be roughly divided into two main sections: the Gwalior or northern territory in which stands the capital, and the Malwa section where Ujjain is the chief town. There is also Gangapur, a small isolated patch in Rajputana.

Geographically, the State falls into three divisions: the Plain, the Plateau and the Hills. The plain includes the area around the capital, which is only 697 feet above sea level, and the Gird, Bhind, Morena and Sheopur districts. As in the rest of the Northern Plains the climate is extreme—severe winter cold followed by oppressive heat in summer.

Malwa's Crops

About 80 miles south of Gwalior the country rises rapidly to the Malwa Plateau—1,500 feet above sea level. This plateau tract represents about 70 per cent of the whole State and magnificent crops of wheat, grains and cotton are raised here. The forest-clad ridges, covering part of this territory, harboured herds of wild elephant which 400 years ago the Moghul Emperors delighted to hunt.

The hilly section of the State lies in the Vindhyan Hills, and Sardarpur district is mainly a tangle of hills and valleys covered with thick jungle where tiger, panther and black bear have their haunts. Though the land is very broken, the general elevation is only about 1,800 feet. The forest tribes include Bhils in the south and Saharias in the north. They live on the sale of jungle produce.

EARLY HISTORY

Cities and rivers in Gwalior territory have been famous ever since India's legendary days and there is no doubt that at sites like Ujjain, Padmavati and Kantipuri many secrets of the dawn of India's history await the archeologist's spade.

The name of the State, Gwalior, is taken from Gwalior Fort. This name has appeared in a variety of spellings—Gawaliar, Gwalher and Gwalior, and is evidently derived from Gopadri or Gopagiri—" Shepherd's Hill." At what period this came about is not known.

Ujjain is by far the most important of the early settlements. The first meridian of Indian geography runs through here ; and in the Shiva idol in the Mahakal temple were believed to have been preserved the seeds of all living species during the great flood. Indeed, " Avantika," the ancient name for Ujjain, means " Seed City " for it was regarded as being as old as time itself. Sri Krishna and his brother Balarama are supposed to have been educated here, rather than at Benares, and the River Sipra which flows past Ujjain is, in Hindu eyes, one of the most sacred streams in the country.

Then there is Besnagar (anciently known as Vidisa) which is near modern Bhilsa. Vidisa, mentioned many times in ancient Buddhist literature and the Hindu Puranas, was the provincial capital of Agnimitra, the king immortalised by Kalidasa in the drama " Malvikagnimitra." He was the second king of the Sunga dynasty which rose out of the wreckage of the Maurya Empire during the 2nd century B.C.

Today mounds and other vestiges of ancient civilisation mark the site of this once-famous city, and it is here that we get a glimpse of the intercourse which went on between India and the early Greek invaders of Asia. The famous Besnagar Pillar was erected in the 2nd century B.C. by Heliodoros, a Greek, who had been sent on a mission by Antialciadas, King of Taxila. Heliodoros describes himself as a Bhagavata of Vishnu Vasudeva in whose honour the pillar was erected.

Padmavati and Kantipuri (modern Pawaya, 14 miles south-west of Dabra, and modern Kotwal, 25 miles north of Gwalior, respectively) were capitals of the Naga Kings who ruled in the 3rd century A.D. One of these kings, Ganapati Naga was conquered by the famous Samudragupta, a member of a dynasty which controlled Central India for 200 years.

Padmavati was the city in which the famous play " Malti Madhav " was laid by Bhavabhuti who gave a vivid description of the place.

Details of Gwalior's rich archeological remains will be found in Chapter 14, but from the point of view of the State's story it may be stated that the Besnagar Buddhist remains which range from the 3rd century B.C. to the 5th or 6th century A.D., the Bagh frescoes and a number of other places in the border country between Gwalior and Bhopal show that this part of India was prosperous and populous at a very early period.

The Huns

Our story is now carried further north because Gwalior Fort comes into history in the hands of Toramana and his son Mihirakula, a family of Hun adventurers who overthrew part of the Gupta dynasty's power in the 6th century A.D. and made their capital at Sialkot. An inscription by Mihirakula can still be seen in the fort. Only a very few years later, however, Yasodharman, in association with other Hindu princes who included Nara Sinhagupta Baladitya, the son and successor of Puragupta, was able to drive Mihirakula into Kashmir. The Hun settled down in that country and the memory of his cruelties has been handed down the generations.

In the meantime Yasodharman erected his pair of victory pillars at Sondni near Mandsaur and inscribed on them a short poem telling of the humbling of Mihirakula, " who had never before that bowed his head in obeisance to any save the god Shiva." Gwalior territory was once again in Indian hands.

That happened in 528 and the next 80 years were a period of confusion. Yasodharman and after him Nagavarman apparently continued to reign till 550 or somewhat later, but it was not until Harsha of Kanauj made himself emperor early in the 7th century that the mists of time cleared a little. He made his conquests with a will and we are told that for nearly six years " the elephants did not put off their housings nor the soldiers their cuirasses." While he attempted not altogether successfully to emulate the great Samudragupta's conquests, he also became famous as a kaviraja, being credited with poems, three dramas and a grammatical work. Harsha died in 648 and Central India once again relapsed into anarchy.

The next important ruler whom we have to notice also came from Kanauj, the great Bhoja Deva, one of whose inscriptions, done in 876, has been found on the Chaturbhuj temple in Gwalior Fort. There is also an inscription of his of 875 at Sagartal. Bhoja was master of the whole country from Gwalior to the Himalayas and it seems that the dynasty's power held until the 10th century when the Kachhwaha clan of Rajputs came into the picture. During that century Vajradaman Kachhwaha captured Gwalior Fort and the region around it from the rulers of Kanauj who in later days suffered a good deal from revolutions inside their own territory.

Gwalior Fort

It is from this period that the story of the foundation of the fort by Suraj Sen dates. A Kachhwaha Rajput Prince, Suraj Sen, is supposed to have been cured of leprosy by the hermit Gwalipa who caused him to drink at the spring near the Suraj Kund which is still known today. However, it is quite true that Kachhwahas were responsible for building much of the fort as we know it today, and independently or as feudatories, they ruled until 1129 when that remarkable character Tej Karon was on the throne. He married the princess Maroni and prolonged his honeymoon for a whole year, which action has caused him to be handed down in tradition as the " bridegroom prince." It was inevitable that this should tempt his nephew, a Parihar Rajput, to usurp the throne.

But we are going ahead of our story. More than a hundred years earlier in 1021 Mahmud of Ghazni had appeared below Gwalior Fort. Though the Kachhwahas had already made it a strong place, they found it more expedient to buy off Mahmud. Consequently Rajput rule continued till 1196 when Kutb-ud-Din Aibak took the fort for Sultan Muhammed Ghori. Fourteen years later, however, the Parihars recovered the fort again during the rule of Kutb-ud-Din's son and they managed to retain possession until 1232 when Altamsh after a siege of 11 months captured the citadel, and to celebrate his victory put 700 prisoners to death before the door of his tent.

This occasion is the first record of a Johar at Gwalior, the Rajput ladies burning themselves to death rather than fall victims to Delhi's Slave King.

But sacrifices were in vain, the fort and its territory remained in the hands of the Muslim kings of Delhi until 1398 when during the confusion caused by the invasion of India by Timur, Virsinghdeo, a Tomar Rajput, made himself master of Gwalior.

The entry of the Tomars heralded the dawn of Gwalior's golden age. Though Central India was by no means entirely at peace, trade and the arts must have flourished considerably under the shelter of the great stronghold of Gwalior. During the reign of Dungarsingha Tomar, one of Virsinghdeo's successors, most of the Jain rock carvings in the fort were executed. It goes without saying that these must have been carved at the behest of Jain merchant princes and it is equally obvious that there would not be merchant princes in Gwalior were there not a very sound guarantee of security.

Raja Man Singh

During the century which followed Virsinghdeo's seizure of the fort, Gwalior progressed so rapidly that Raja Man Singh, the greatest of the Tomar rulers, was able to build the magnificent Man Singh palace and the Gujri Mahal. The latter housed his famous queen Mrignayani, the foundress of the Gwalior school of music. This institution rapidly became known all over the country and much later, in the " Ain-i-Akbari " where 36 greater singers and players are listed, 15 of them are recorded as having learnt their art at Gwalior. Among these pupils was Tansen, the greatest singer India has ever known. It is fitting that his tomb should be in Gwalior within sight of the palaces which he once knew so well.

Raja Man Singh was certainly the greatest and very nearly the last of these Rajput rulers. He died in 1517 and soon afterwards Ibrahim Lodi of Delhi was in possession. In turn he had to give way to Babar, the Turkish invader who was to found the Moghul line. Normally we should regard the fort as now being in the hands of the Moghuls until the 18th century when the first Scindia arrived in Central India. That, however, would not be quite true, because during Humayun's eclipse Sher Shah Suri, an Afghan officer in the former kingdom of Jaunpur, became strong enough to seize Malwa and Mewar. During the following 15 years Sher Shah and his successors spent a good deal of their time in Gwalior and indeed before the end of this interlude it had become practically the capital of their dominions.

Though Babar was the first of the Moghuls it did not take him long to make his mark on Gwalior. One of his early actions was to order the destruction of the gigantic Jain figures carved on the fort precipices. Owing, however, to the size of the statues his orders were only partly carried out.

It was Akbar who brought the Suri dynasty to an end in Gwalior and after that the fort became not only a strong place for the Moghuls, but a political prison into the bargain. During the next two hundred years a long procession of princes of the Moghul house, feudatories and great nobles passed into the fort—very few to return to the outer world. Mostly they were men who were considered by the Emperor to be too dangerous to live at large and too dangerous to execute openly. The isolated top of Gwalior Fort overcame the ruler's difficulty admirably. Once safely up there they were dosed with poust, a decoction of poppy heads in water. This is not an immediate poison, but, continued over a period, causes mental and physical break-up and finally death. Two of the victims of this method were Sulaiman Shikoh and Sipihi Shikoh (Dara's sons) while Aurangzeb's own son, Sultan Muhammad, died in prison here.

17th Century Condition

Apart from the monuments which have been left, we have had so far comparatively little information on the state of the territory which nowadays constitutes the Scindia dominions. During the 17th century, however, we have the observations of Tavernier, the French traveller who spent a considerable time moving about the country on his business as a jeweller. During one of his journeys he passed through Narwar which he describes as "a large town on the slope of a mountain above which there is a kind of fortress, and the whole mountain is surrounded by walls. Most of the houses, as is the case in the other towns of India, are thatched and have only one storey ; and those of the wealthy have but two, and are terraced. Several large tanks around the town were formerly lined with cut stone but they are now neglected ; about one league off there are still some beautiful tombs. The river (the Sind river) we crossed the day before and that must be crossed again four or five coss beyond Narwar, surrounds the three sides of the town and of the mountain, which form a sort of peninsular. They make at Narwar a quantity of quilted coverlets some white, others embroidered with flowers in gold, silver and silk."

" Gwalior, " we are told, " a large town, is like others ill-built, in the manner of India. A small river passes it. It is built along the side of a mountain which lies to the west, and towards the top it is surrounded by walls with towers. There are in this enclosure several ponds formed by the rains, and what they cultivate there is sufficient to support the garrison ; this is why this place is esteemed one of the best in India. On the slope of the mountain which faces the north-west, Shahjahan built a pleasure house, from whence all the town is visible, and it is fit to serve as a fortress. "

Tavernier here is of course referring to the town of Old Gwalior, and when compared with modern Lashkar we can agree with him that in Moghul days it must have been " ill-built. "

ARRIVAL OF THE MARATHAS

We ended our first section of the story of Gwalior with the Moghuls still in control of Gwalior Fort and the area round it. This state of affairs lasted until the early decades of the 18th century when the decreasing power of the Moghul family and the increasing independence of the viceroys and generals appointed by the Delhi rulers, threw much of India into a state of confusion.

In the midst of this political maelstrom appeared Balaji Vishvanath, the first Peshwa who, in the name of King Shahu of Satara, led a Maratha army to Delhi and obtained an Imperial grant to chauth (a quarter of the revenues) in the Deccan. Subsequent events proved that this was an important first step.

In 1720 Balaji Vishvanath died and was succeeded by his son Baji Rao, then a lad of 22. Political conditions being what they were, the Marathas had to decide on a definite course of action—expansion to the south or north. Baji Rao's eloquence at a council meeting in Satara in 1720 carried the day and Maratha policy was set for the conquest of Central India as a first step to taking over the decadent Moghul Empire.

Baji Rao was not ready to lead an army into Central India until 1724, when he was able to undertake a whirlwind campaign through Malwa, which left that province in Maratha hands. Though the Peshwa was forced to return south he appointed as the king's agents Ranoji Scindia, Malharrao Holkar and Udaji Pawar—three young men who were rising to fame as soldiers in his own service. They were charged with the collection of chauth and sardeshmukhi (ten per cent of the revenues over and above chauth) in the Malwa districts. For their own remuneration they were to take half of the mokassa, the remaining 65 per cent of the revenue.

First Scindia

It is thus, as a representative of King Shahu that Ranoji, the founder of the Scindia house, first appears in Central India. The Scindias, who came of an ancient Kshatriya family, are one of the 96 kulas or clans into which all pure Marathas are divided. The original name of the family appears to have been Sendrak from which the name Scindia has been derived. In any case members of the family had risen to royal notice during the time of the Bahmani kings in the Deccan, and they come into history as Patils of Kannerkhera which is about a dozen miles east of Satara. Scindias held commands in Aurangzeb's army, and Savitrabai, a daughter of the house, was married to Shahu.

Ranoji belonged to a younger branch of the house and was brought up as the playmate of Baji Rao, the Peshwa's son. He later served in the Peshwa's army, and by his military qualities rapidly rose to the front—so rapidly indeed that he was still a young man when he was appointed as an agent in Malwa.

Ranoji lost no time in making his headquarters at Ujjain—still the centre of the Scindia's Malwa territory—at which point he was in an excellent position to control his portion of Malwa. This Maratha invasion of Central India did

not of course fail to arouse opposition and the first Scindia had further opportunities of distinguishing himself on the battlefield during campaigns against Delhi (1736), the Nizam (1738) and the Portuguese at Bassein (1739). He died in 1745 at Shujalpur where his cenotaph still stands.

How well he had organised the districts given into his charge is proved by the fact that they were estimated to produce Rs. 65½ lakhs a year when his son Jayapa succeeded him. Jayapa, who ruled until 1759, also turned out to be a gifted soldier and played an important part in the political warfare which was rife in the India of his day. He was deputed by the Peshwa Balaji Rao to assist Ram Singh of Jodhpur against the latter's brother Bijey Singh who opposed his succession. Jayapa besieged Bijey Singh at Nagore where Bijey Singh contrived to have his Maratha adversary assassinated in 1759

Jayapa was succeeded by his brother Dattaji who ruled only until the following year when he was killed in battle against Najeeb-ud-Daula.

Panipat and Mahadji

The year 1761 was a black one for the Marathas. The confederacy of generals, directed from Poona by the Peshwa, had made tremendous strides in Northern India, and the effete Moghul Empire seemed to be on the point of falling completely into their hands. Their progress however roused Ahmed Shah Durrani, an invader from the north-west who had made himself paramount in the Punjab.

Ahmed Shah's army in conjunction with the forces of the Rohillas and the Nawáb of Oudh vanquished the Maratha confederacy in the decisive battle of Panipat. This was a disaster of the first magnitude. Not only was Jayapa's son Jankoji taken prisoner and executed, but the Maratha confederacy was to all intents and purposes split up. It is from 1761 that we can mark the individual development of the various Maratha chiefs' dominions in Central India.

The territory which was to become the future Gwalior State was fortunate in having Mahadji Scindia, a son of Ranoji, to succeed his nephew Jankoji. Mahadji enjoyed a very long rule—34 years—and made good use of his time in consolidating his dominions.

He had escaped with a wound from the battle of Panipat, being assisted by Rane Khan, a Muhammedan water carrier who bore the wounded Scindia along with his water skins on his bullock. It was characteristic of Mahadji that, in spite of the tremendous work in front of him, he did not forget Rane Khan whose descendants still hold a jagir in Gwalior State.

One of his first tasks was to recover the Fort of Gwalior which had been seized by Lokendra Singh, the Jat chief of Gohad, during the confusion after Panipat. Mahadji made short work of him and set out to regain control of the Scindia dominions. For this purpose he retired from the Deccan and the political intrigues which were becoming chronic in the Peshwa's court. By 1769 he had reasserted his rule throughout his possessions in Malwa. He

seized every opportunity of increasing his influence and this inevitably resulted in a series of collisions with the British as a result of which both Gwalior Fort and Ujjain were captured from him.

Before this disaster, however, Mahadji in company with Tukoji Holkar, had made a drive through Northern India as far as Delhi. They had even induced Shah Alam, who was living under the protection of the English at Allahabad, to return to his throne at Delhi as a Maratha protege. But the shadow emperor soon found that he only ruled in Delhi city and before very long the Marathas were forced to retire.

Some years after this Mahadji Scindia used his troops in the Deccan on behalf of one or the other of the parties into which the Maratha administration had split. They in turn sent him against the English both in the Deccan and in the Konkan. Thus it came about that in 1780 Mahadji Scindia was at war with the English in Gujerat. This state of affairs Warren Hastings countered by an alliance with the Chief of Gohad. The latter, with the assistance of Capt. Popham, took Lahar and Gwalior, a reverse of fortune which seriously discomfited Mahadji.

Treaty of Salbai

Further successes against him finally led up to the Treaty of Salbai in 1782 which far from being a defeat for Mahadji, allied him with the English and prepared the way for his rise to be the most powerful ruler in Central India. By now the Scindia was recognised as an independent power, though in name he continued to profess subjection to the Peshwas of Poona.

Freed of these troubles in the south and west, Mahadji was able to turn his attention to Central India and the North again. The opportunity was not long in coming. He was asked to help one of the contending parties in the court of Shah Alam and very soon found himself the most powerful man in Delhi. The emperor wished to confer on him the title of Amir-ul-Umra, but Mahadji refused this for himself, though he accepted on the Peshwa's behalf the title of Wazir-ul-Mutlak. A change in the course of Delhi intrigues caused Mahadji to be defeated and gave the notorious adventurer Ghulam Kadir a chance to seize the emperor's person. Before he was defeated and hanged, Ghulam Kadir had not only flogged and blinded the emperor but deposed him.

After that Shah Alam seems to have preferred the comparative peace of the Scindia's Maratha garrison to intrigues with the Rohillas.

In many of Scindia's successes at this period a considerable contribution was made by that soldier of fortune, Benoit de Boigne (alias la Borne), a Savoyard, who entered Scindia service after Mahadji had realised the tremendous value of a properly trained and disciplined army. He took a leading part in the operations against Ghulam Kadir and in 1790 broke the power of Jodhpur by the battles of Patan and Merta.

Two years later Mahadji Scindia organised the most splendid show that Poona had ever seen. The occasion was his visit to hand over to the Peshwa the Imperial patent which made him the Wazir-ul-Mutlak, Mahadji being

deputy Wazir. These honours had been made hereditary by the restored Shah Alam. With the patents of title came the nine robes of honour, the jewels, the sword and shield, the seal, the pen-case, the inkstand, the fan of peacock feathers, the gilded sedan chair, the palanquin, the horses, the elephants, the imperial standard, crescents, stars and insignia of the fish and the sun, the honours due to a perpetual viceregent of the Empire.

Such was the pomp and show. Perhaps more important to the Scindia was the fact that his own Deputy Wazirship carried with it the command of the Imperial armies, and the management of the provinces of Delhi and Agra. Through these he gained control of northern India, and thus became the *de facto* ruler of Hindustan. His power was now at its zenith and he was full of schemes for further aggrandisement. But they were all cut short. He died suddenly on February 12, 1793 at Wanowri near Poona.

Undoubtedly the greatest soldier-statesman the Marathas had produced after Shivaji himself, Mahadji Scindia was the subject of many remarkable tributes from contemporaries, one of which is well worth quoting :

" Clear in the conception of reasonable projects, he was bold and prudent in their realisation. In a scene of barbarous anarchy when all the bonds of society seemed to be unloosened, he was amiable, courteous and free from cruelty. . . . Sindhia was easily provoked and not easily appeased. But, if he seldom forgave an injury, he never forgot a benefit. consequently he was served with fidelity and affection. His countenance was expressive of good sense and good humour, but his complexion was dark, his person inclining to corpulence, and he limped from the effects of his wound at Panipat. He could write, was a good accountant, and understood revenue affairs well ".

Daulat Rao

Mahadji Scindia left no son to succeed him, but his grandnephew, Daulat Rao (grandson of Tukaji who had been killed at Panipat), then a lad of 15 years, was accepted as Gwalior's new ruler. During his period Central India passed through extremely turbulent times when the Pindari bands attached to the armies of Scindia and Holkar became notorious. This period ended with a struggle with the English and the Treaty of Sarje Anjangaon in 1803. By this treaty the Scindia ceded territory north of the Chambal and south of the Ajanta Hills. Though modified from time to time in detail, Gwalior territory has remained substantially the same from that treaty up to the present day.

Daulat Rao is important as he is the founder of the State's modern capital. In early Maratha days, as we have seen, Ujjain was the headquarters, and when the Scindia moved further north the ruler's capital was his own camp—Lashkar —wherever that might be. Mahadji Scindia, for example, was continually on the move, and it was not until the more settled days of the early 19th century that Daulat Rao decided to fix the travelling court permanently on a site to the south of the Fort. This was the permanent Lashkar, a camp which gradually turned itself into a town, now one of the finest cities in Central India.

Daulat Rao died in 1827 and left no heir, so his widow, the Maharani Baija Bai, adopted Mugat Rao from a distant branch of the family. He was 11 years old when he succeeded as Jankoji Rao. His reign of 16 years was a troubled one—a contributory factor being a strained relationship between himself and the Regent who long outlived him.

When Maharaja Jankoji Rao died in 1843, his 13 years old widow in turn became Regent to another adopted boy Bhagirath Rao, who was eight years old. He succeeded as Alijah Jayaji Rao. Such a state of affairs almost inevitably caused dissensions and finally a collision with the British Government in the battles of Maharajapur and Panihar on December 29, 1843. Since then the relations of the State and the British Government have been undisturbed in their cordiality. Indeed, during the 1857 Mutiny, the young Maharaja sided with the British at very great personal risk.

Jayaji Rao's Reforms

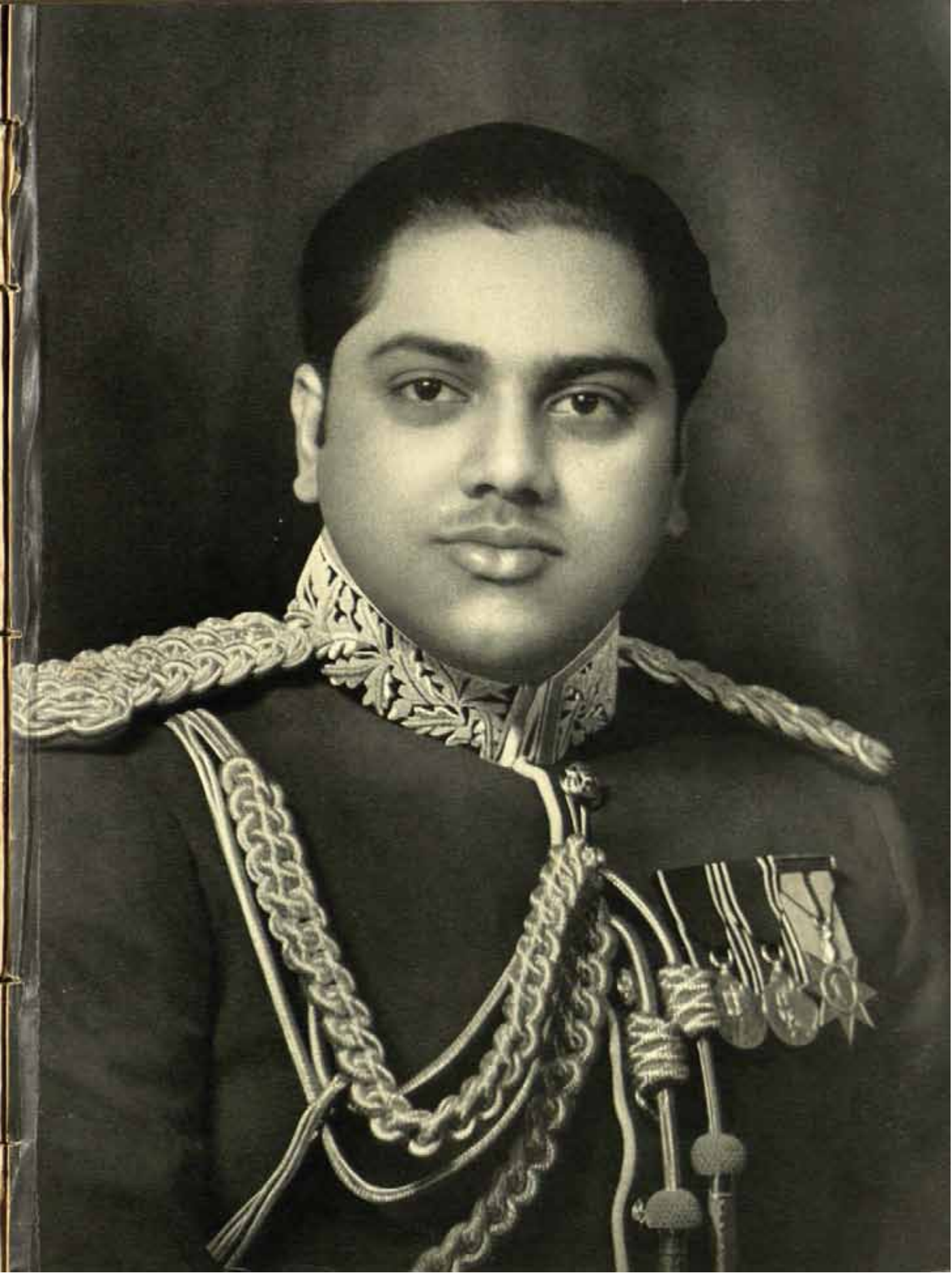
After his reinstatement, however, he was able to devote the following 29 years of his reign to improving conditions in the administration of his dominions.

Radical reforms were introduced into every department of the administration. So able was the management of the State that by the third quarter of the century Gwalior had completely recovered from the desolation of 70 years previously. From Maharaja Jayaji Rao's reign begins the policy of investing a portion of State funds in enterprises which would not only assist revenues but also foster further prosperity. One of the first of these steps was taken in 1872 when the State lent Rs. 75 lakhs for the construction of the Agra-Gwalior portion of the Great Indian Peninsular Railway. In the following year a similar amount was advanced for the Indore-Nimach section of the Rajputana-Malwa Railway.

By now the gifted Maharaja was becoming widely known. A personal salute of 21 guns was bestowed in 1877 and the Maharaja became a Counsellor of the Empress. By 1886 he was able to realise one of the great wishes of his life, the restoration of Gwalior Fort and Morar Cantonment which had been in the hands of British troops since 1858. They were handed back in exchange for Jhansi.

When Maharaja Jayaji Rao died in 1886 he was able to leave to his son, Madhav Rao, a boy in his tenth year, a prosperous state and ample resources which were excellent foundations for the brilliant career which lay ahead of the new Maharaja. A Council of Regency conducted the administration until 1894 when the new ruler took over the reins of government and a new and even more remarkable era of progress began for the State.

H. H. MAHARAJA GEORGE JIWAJI RAO SCINDIA,
RULER OF GWALIOR.



FATHER AND SON

In the past 45 years Gwalior has made more progress than she ever did in any previous century or even more. All this has been due in great part to the activities of two men, father and son, the late Maharaja Madhav Rao and the present Ruler.

The late Maharaja has often been described as the Maker of Modern Gwalior, but since his son received his powers in 1936 the energy and determination for progress which he has shown suggest that in future years we shall come to look upon the late Maharaja as the designer of Gwalior's present prosperity, much of the active constructive work having been ably carried forward and elaborated by His Highness Maharaja Jiwaji Rao. Rarely can a father and son have shown such a continuity and identity of policy—a fact made all the remarkable by the separation of their administrations by a gap of 11 years minority regency.

In 1894 the late Maharaja took the reins of government into his own hands from a Council of Regency which had been at work for eight years. The great resources and prosperity left by his father, Maharaja Jayaji Rao, were still available for him, but as is inevitable in the case of a minority administration the State had been waiting for the guiding hand of a powerful ruler in order to progress.

About the first task which the young Maharaja set himself was the thorough overhaul and reorganisation of the State Departments. His training as a youth had enabled him to see where the defects lay and during the whole of his rule he laboured hard to remove them and to build up an administrative machine with a tradition of efficiency and integrity.

The value of this work has been emphasised in the past few years; for had the late Maharaja failed to achieve his object, the present Ruler would have been forced to undertake this work before initiating further reforms which aim to bring Gwalior into line with the most democratic Indian States.

Financial Genius

It should not be thought however that Maharaja Madhav Rao was occupied solely with administrative detail. He soon proved to his people that he had foresight, creative ability and energy far above the ordinary. For example, given the resources and prosperity bequeathed by Jayaji Rao, it would have been easy to go ahead with reforms without taking too much trouble to ensure that in future the necessary financial resources would be there to smooth the path of progress.

Maharaja Madhav Rao realised very fully that progress needs a cash backing, and that no one can possibly be sure how long prosperity will last. Consequently, although financially the State seemed to be going from strength to strength in the boom years during his reign, he insisted that surplus funds be invested to provide income for the progressive undertakings which he initiated. The compulsory 20—25 per cent. saving instituted by him has made possible the funds for irrigation, education and famine relief.

This continual saving and setting aside of funds for nation-building activities was almost unheard of in the India of his day. It was not long before Gwalior had acquired the reputation of having the straitest laced financial policy in the country. Its results still persist. The many improvements introduced in recent years have been possible without also introducing increased taxation.

Hand in hand with Maharaja Madhav Rao's determination to establish the administration on a sound basis went his equally great determination that the State's economic resources should be developed for the benefit of its subjects. For example, the railways running through the State. Though some progress had been made with railways during his predecessor's regime, it is to Maharaja Madhav Rao that we owe the full development of the scheme, including the Gwalior Light Railway which, far from being a Prince's hobby, makes a handsome profit for the State. He also originated the idea of starting factories with State encouragement, and the Gwalior Leather Factory was set up in 1912 to be followed soon after by a number of other undertakings—all of which provide employment for State subjects and enable Gwalior public money to be spent in Gwalior.

Another undertaking which has had important repercussions on the economic condition of the State was the outlay of nearly Rs. 2½ crores on irrigation works. Many other schemes were put into operation during the 31 years of Maharaja Madhav Rao's rule, and by 1920 they had become sufficiently widespread to necessitate to the establishment of a Board for the Development of Economic Resources. This body deals with such matters as agriculture, agricultural engineering, veterinary services, colonisation, irrigation, technical education, commerce and industry, mines, statistics, communications, forests, banks and power schemes.

Political Reforms

On the political side Maharaja Madhav Rao's regime was no less important. Some of his most important reforms include the separation of the judiciary and the executive departments, law codification, and the establishment of representative institutions such as the Majlis-i-Am, the Majlis-i-Kanoon, municipal bodies, local bodies such as district and pargana boards, Aukaf committees and Panchayat boards.

The first municipality had come into operation in 1887 and it was typical of Maharaja Madhav Rao's tremendous energy that for several years he was the active President of Lashkar Municipality. The foundations of the Majlis-i-Kanoon were laid in 1912. The same year saw the establishment of Panchayats, an economical and democratic system of village administration, as old as India itself, but not fully realised in many other parts of the country until the present decade.

The Majlis-i-Am was set up in 1920 when the Maharaja emphasised the value of joint responsibility between a ruler and his subjects in reducing the burdens which a government would otherwise have to bear alone.

Other features of administration to which he paid considerable attention and which are worth a place in this very brief review include his work for the criminal tribes, his work for the jagirdars and his development of female and technical education. The criminal tribes work is interesting in that Maharaja Madhav Rao was one of the first administrators in the country to realise the necessity of sympathetic reclamation of these otherwise lawless people. He set himself a most difficult task, but the effect has been to develop the tribespeople up to the point where they can take their places as villagers.

Maharaja Madhav Rao's services during the Great War, which occurred almost in the middle of his regime, were timely and remarkable. He placed all the resources of the State at the disposal of the King-Emperor, helped to put the hospital ship "Loyalty" in service and opened a hospital in Nairobi. Altogether the Durbar spent about Rs. 234 lakhs in financial assistance. It was a tremendous effort which none but a wonderfully organised State could have undertaken.

In civil life Maharaja Madhav Rao was widely known and honours too numerous to mention were showered on him. He was the first Pro-Chancellor of Benares Hindu University, and honorary doctorates were conferred by the Universities of Oxford, Cambridge and Edinburgh.

In April 1925 Maharaja Madhav Rao Scindia sailed for England to do homage to the King-Emperor, but his condition during the voyage became so bad that he had to remain in Paris, where he passed away on June 5. His Highness' remains were cremated at Pere-la-Chaise and the ashes were brought home to Shivpuri, the beautiful hill resort which he had created.

The Present Ruler

His son and successor, the present Maharaja George Jiwaji Rao Scindia, was then in his ninth year. He was proclaimed Maharaja of Gwalior, his accession ceremony being celebrated on September 27, 1925. For the next 11 years the administration of the State was carried on, according to the wishes of the late Maharaja, by a Council of Regency with Her Highness the Maharani as president, assisted by 10 councillors. When His Highness the present Maharaja was invested with his full ruling powers amid brilliant celebrations on November 2, 1936, he was in his twenty-first year with a remarkable record of training and education behind him. This began when he was four years old and a Government Gazette notification announced that he had been enrolled as a private at a rupee a month in the Maharani's Own Infantry.

Two years later, 1922, he marched past his father at the head of the Gwalior Forces. That he should lose that brilliant father three years later, in the midst of his most important formative period, might have been a misfortune of the greatest magnitude, were it not for the fact that Her Highness the Maharani spared no effort to see that his upbringing and training were carried out strictly in accordance with the detailed instructions that the late Ruler had left.

Under the instruction of Indian and British tutors His Highness passed the Matriculation Examination in the Second Division, and spent a year

studying the Intermediate Course at the Victoria College. After that he had to begin the intensive training in administration which is among the first essentials of a modern ruler's equipment.

After preliminary training in revenue work he took charge of the Revenue Department in 1934 and worked as the Revenue Member of the Gwalior Cabinet for about a year. This was succeeded by a period in Bangalore where he was able to study revenue and secretariat work. November 1935 found him in Lyallpur where he learned the complicated inquiries and calculations necessary to efficient settlement work. After that course he spent some weeks in the famous Lyallpur Agricultural College.

On his return to Gwalior his civil career began as a village patwari—just as his military career had begun as a rupee a month private. During his regime as a patwari he surveyed the village of Shankarpur in Ujjain, preparing all the charts and papers himself.

District Work

The end of 1936 saw the new Ruler in charge of all the work of the State, and the number of schemes awaiting him must have been phenomenal for he was full of ideas for improving the lot of his subjects. However, in order to avoid working purely on theories and the reports brought into the capital, he decided to see for himself first, and with that object set out on a thorough tour of Mandsaur district where he met all classes of the people and made special arrangements for the presentation of petitions. The following year he made a similar tour of Sheopur district. This necessity of knowing at first hand what is happening in the State has been further emphasised by the provision of a Minister without Portfolio in the Executive Council reorganised by His Highness. One of the chief duties of this Minister is to tour the districts and report on the progress of work.

In reorganising the Regency Council into the Executive Council His Highness arranged that all nation-building departments should be placed under one Minister so that all these activities could be the more easily co-ordinated.

Further general overhauling has been undertaken in the administration with emphasis on the necessity of appointing young men who are well qualified for their posts. For the more important posts His Highness selects the incumbents himself.

Judicial reforms were a subject to which the new Maharaja early turned his attention. The Chief Justice of the Gwalior High Court was deputed to study procedure in the High Courts of Bombay, Allahabad and Lahore. The High Court and other judicial courts of the capital were moved to one centrally situated and spacious building. The system of appeals and revisions has been simplified, a systematic attempt is being made to root out corruption and only men with law degrees are nowadays appointed to judicial posts.

The whole police force has been thoroughly overhauled and the increase in its efficiency is shown in the decrease in the volume of crime, and particularly

in the shooting or arrest of outlaws who were notorious in certain parts of the countryside. The police reforms include a better type of recruit, improved pay and prospects, central training school for constables in Lashkar; training of sub-inspectors of the State in the Central Provinces and United Provinces Police Colleges; the provision of efficient weapons; reorganisation of the C. I. D., and provision of a smart looking uniform and kit.

Education Reform

One of the most outstanding reforms introduced in His Highness's regime has been the educational reorganisation in which the entire course of studies for primary and middle classes has been completely revised in order to be really useful to the village people and give a strong bias in favour of manual training. More schools have been opened (189 primary schools between 1936 and 1939) and the existing ones are being improved. Medical facilities for the students have been considerably improved and His Highness has donated a lakh of rupees from his Privy Purse to found a Students' Medical Relief Fund.

Medical relief has benefited greatly by His Highness's initiative. One of the most important items will be the Princess Kamla Raja Hospital for Women and Children, the foundation stone for which laid by H.E. the Marchioness of Linlithgow. The Gajra Raja Surgico-Radiological and Pathological Institute is under construction and important additions have been made in the X-Ray department of the Jaya Arogya Hospital, which hospital has now got a tuberculosis ward.

Women doctors have been appointed in every district, and Unani and Ayurvedic dispensaries opened in a number of places. Arrangements have been made for sending members of the State medical force abroad for special studies, and for students at the Grant Medical College, Bombay.

Many other reforms there have been and there are still more to come. Details of those which are already in effect will be found in the chapters dealing with the various sections of State activities.

But by far the biggest change introduced by His Highness was the announcement, made at his Birthday Durbar in June, 1939, of the State's new Constitution which, when in operation, will put Gwalior among the first of the democratic States in the country.

In announcing that the Majlis-i-Am and the Majlis-i-Kanoon would be replaced by two legislative bodies with majorities elected by the people, the Ruler was as far in advance of his people's demands as his father was when he set up the Majlis-i-Am in 1920. In these days, when the internal peace of many States is disturbed by agitators, the motives of many whom would not bear the slightest scrutiny, the Scindia's Dominions have not been infected by the unrest. Nor, as the people's political consciousness grows are they likely to have to resort to agitators' methods to make their demands heard. The Praja Sabha and the Samant Sabha provide the constitutional link between Gwalior's people and their Maharaja.

SARDARS AND JAGIRDARS

The aristocracy of Gwalior—the Sardars and Jagirdars—whose estates occupy a little more than a fifth of the total area of the State, divide themselves fairly easily into three main groups: those families whose ancestors came with the Scindias from the Deccan; those families who were established on their lands before the Maratha conquest; and the descendants of men who have been honoured during the Scindia regime.

In the first group the majority of families belong of course to the Maratha race; their ancestors accompanied the early Scindias to Hindustan and shared their exploits. For their services they were rewarded with those grants which they hold today. In the early years of the Scindia regime, these supporters of the ruling house partly maintained their own followings ready for the active service on which they were often deputed. They were instrumental in extending the Maratha conquests northward and in consolidating newly acquired territories.

As time went on some of these families were linked to the ruling house by marriage, and a number of them have in the past taken a considerable part in steering the government through stormy years. The end of active service and the pacification of Northern India during the 19th century saw the disbandment of the forces maintained by these families. Such families remain however among the leading sardars of the court.

Rajput Families

The second group, though equally as martial as the Marathas in their traditions, stands quite distinct. They are the families who existed prior to the advent of the Marathas, and the majority of them belong to various Rajput clans. Their origins vary. Principally they date from grants made by former rulers for the provision of minor branches of their families, or from grants bestowed as rewards for services rendered. Some of them are tenures held in lieu of rendering military or other services.

Another interesting group consists of chiefships which appear to have been founded by soldiers of fortune during the unsettled years which preceded the advent of the Marathas. They include the well-known group of Girassias, many of whom, though confirmed later on in their possessions by the Settlement of Malwa, were really in possession of these holdings, lawfully or otherwise, from an earlier period.

All these pre-Maratha estates, whether acquired by gift or by conquest, acknowledged at least nominally the suzerainty of Delhi. Thus when the Scindias established their regime these petty chiefs were suffered to remain provided they acknowledged the suzerainty of their new overlords.

The third group of sardars—the conferments made since the Scindia regime was established in Gwalior—consists of grants made for a variety of purposes both secular and religious. With certain exceptions none of these conferments are large in extent, and they form a non-homogeneous group.

As these aristocrats by reason of their position and holdings enjoy considerable prestige in the State they are potentially most valuable leaders of the people—providing a progressive outlook can be inculcated. The first steps in this direction were taken by His late Highness Maharaja Madhav Rao. He found that while those jagirdars who resided in the capital were supervised directly by the ruler and the ministers, those who resided in the districts dealt with the Suba—the district revenue officer. There was thus no uniformity of treatment. The Maharaja realised that the seclusion of large numbers of his aristocrats in the districts gave them very little chance of personal contact with their ruler or with the progressive ideas which were flowing into the State. He could not afford to leave them in their seclusion for on their conduct depended not only the good name of the Durbar but also the happiness of a considerable portion of the State's subjects. His Highness therefore formed the Maharashtra Hitchintak Sabha and the Rajput Hitkarini Sabha for the social uplift of Marathas and Rajputs.

Under the title of Kawaid Jagirdaran a codified law was issued regulating the relations of the Durbar and defining the rights and privileges of the jagirdars. A separate department for their administration was set up in 1909. This department has a Muntazim and two subordinate officers at headquarters, and sub-offices of the deputies to the Muntazim Jagirdaran have been established at Ujjain and Shivpuri for the convenience of those who live in the districts. The department is in the portfolio of the Foreign and Political Minister, and any jagirdar who feels unable to settle any matter to his satisfaction with any other department may seek the aid of this office.

Court of Wards

As an independent counterpart to the Muntazim Jagirdaran which deals with jagirdars who are managing their own estates, there is the Court of Wards which looks after the property of dependent ones. The creation of Maharaja Madhav Rao, the Gwalior Court of Wards is probably unique in the world, for not only does it manage the estates of minors, but also those of adults—sometimes as a result of voluntarily sought protection ; but more often as a punishment inflicted for such reasons as gross mismanagement, disobedience, oppression or similar offences.

Maharaja Madhav Rao made no secret of the fact that for complete identity of interests between the ruler and his jagirdars and for the preservation of the class as a whole, the ruler was perfectly justified in bringing an estate under the control of the Court if the owner was mismanaging the estate and ruining the interests of himself and his heirs ; crippling the resources of the jagir beyond control, tyrannising over the ryots and causing discontent ; disobeying orders in a hostile and disloyal spirit, and generally disgracing himself, his family and ultimately the Raj.

Though at first sight such a policy may savour of high-handedness, it has to be realised that a temporary control of an estate by the Durbar is in the long run preferable to confiscation or deposition of the holder. Thus the

most severe punishment that can be meted out to a jagirdar guilty of flagrant misconduct is to put his estate under State supervision.

Furthermore the late Maharaja not only aimed at preserving and improving the estates through the Court of Wards, but also kept in mind the comfort and happiness of the owner and members of his family—points which he never failed to emphasise to officers of the Court. The Gwalior jagirdars have much for which to thank His late Highness. He left them well secured in their jagirs with their rights and privileges assured to them and with an insurance against insolvency and indebtedness.

He was also responsible for the foundation of the Sardar's School (now the Scindia School) where the sons of sardars and jagirdars are educated, not only in the three Rs but in a thorough course of citizenship which fits them to take their place in the community.

Gwalior State can be truly said to have a prosperous and contented aristocracy which has been impressed with the necessity of interesting itself in State administration and capable of taking a direct and personal interest in the administration and betterment of its estates.

The total number of jagir grants in Gwalior is about 600, covering a little more than 5,500 square miles. There are 48 Maratha families whose estates occupy about 1,700 square miles. Brahmin families number 133 with nearly 483 square miles; Rajputs about 250 with 2,700 square miles; Muhammedans 31, with over 300 square miles. The rest include Europeans, Kayasthas, Banias, Mahants and other castes.

H. H. THE MAHARAJA IN DURBAR.



HOW GWALIOR IS RULED

THE SCINDIA TRADITION

DURING the two centuries for which Gwalior territory has been under the control of the Scindia House an almost bewildering variety of changes in political outlook have taken place in the country.

To begin with, it has to be remembered that the first Scindia was sent to Malwa to collect chauth for the Maratha kingdom ruled by the successors of Shivaji and controlled in effect by the Peshwa. It is clear from the circumstances under which those early expeditions to the north were made that the Marathas were in the main intent on acquiring territory which was known to be capable of yielding a profitable amount of revenue.

That they were not inaccurate in their estimate of the potentialities of Malwa is proved by the fact that Ranoji Scindia left territory worth Rs. 65½ lakhs a year to his son. Under the rule of Mahadji Scindia the extent of this territory was greatly widened and though he suffered a number of set-backs which to a certain extent limited the area of Gwalior State, it is evident from the attention which he and his successors devoted to their territory that they realised the magnitude of the work with which their house had been entrusted.

Though the first Scindia expeditions can be regarded as out and out revenue gathering campaigns it is evident that those early rulers soon realised that to maintain that revenue the peasants who produced it must work under prosperous conditions. This realisation has slowly resolved itself into the tradition that the rulers of Gwalior are in a position of trust towards their people—an attitude well exemplified by the proclamation of the new constitution made by His Highness Maharaja Jiwaji Rao in 1939.

It is necessary in the case of Gwalior to remember that the absolute, autocratic rule under which so much of India lay in the days of the earlier Scindias, was to a certain extent modified in this area.

There are two reasons for this. The first is the Maratha character which under Shivaji had so far resented despotism as to set up a new empire, ruled by a sovereign and his council. Secondly, the extent of the territory and the Scindia's own movements between Malwa and Poona made a certain devolution of power necessary. As this state of affairs in turn gave way to a remarkable succession of regency councils, it is easy to see how the usual

Indian tradition of an autocrat ruling with the assistance of a dewan failed to crystalise in Gwalior.

Early Reforms

It was therefore not too difficult for His late Highness Maharaja Madhav Rao to lay the foundations of representative government early in this century.

His most important reforms in this respect included the separation of judicial and executive functions (a separation which has not yet been fully made in British India), the establishment of Panchayat boards, and the establishment of representative institutions such as the Majlis-i-Am, the Majlis-i-Kanoon, municipal bodies, district and pargana boards, and Aukaf committees. From the political point of view these were vital reforms, made at a time when India as a whole was only just awakening to the possibilities of popular government.

While it is true that councils which could advise the ruler had been in existence since the time of Maharaja Jayaji Rao, the Majlis-i-Am and the Majlis-i-Kanoon brought the people's representatives into much closer contact with the Government of the State.

The Majlis-i-Am was an assembly of the representatives of bodies covering a wide diversity of interests plus representatives of the educated classes. This body acted in an advisory capacity, with power to pass resolutions on various nation-building activities such as education, local self-government, public health, sanitation, communications, public trusts, commerce, trade, co-operative banks, posts and telegraphs, etc. Bills were also referred to it by the Government for its views.

From the Majlis-i-Am was selected the Majlis-i-Kanoon an expert body to which the Government could bring legislation for discussion. All members of Government were ex-officio members of this body.

Though to the out and out supporter of the theory of popular government these bodies seem, nowadays, mild attempts at reform, there is no doubt that they served well to indicate to the ruler and his council of ministers the state of public feeling. They also gave valuable training to the leaders of the public who later would be called upon to form the much more powerful legislatures under the 1939 reforms. Though it is true that the resolutions passed by the Majlis-i-Am were not binding on the Government, they were treated with the greatest respect and this institution by degrees built itself up into a body of pronounced utility.

THE 1939 CONSTITUTION

The late Maharaja epitomised his views on political progress when at the inauguration of the first session of the Majlis-i-Am in November 1920, he said: "I regard as bad the practice of conceding people their demands when they become tired of demanding them and, becoming desperate, are prepared to create trouble.....Keeping therefore the changing times in view and working with foresight, one should act so that the people have sympathy with the Government and do not lose confidence in it."

This good example has been followed by the present Ruler who initiated his scheme for reforms almost immediately after he took his powers in November 1936. In a speech to the Majlis-i-Am he said: "I wish to make this body a true representative of different shades of opinion and a responsible guide in matters of administration." The Constitutional Reforms Committee included among its personnel members of the Majlis-i-Am and the results of its work were included in the Proclamation which the Maharaja read at his Birthday Durbar in June 1939.

In essence this proclamation of a new constitution set up two new houses of legislature—the Praja Sabha and the Samant Sabha—to replace the Majlis-i-Am and the Majlis-i-Kanoon. Much wider in their powers than the bodies which they replace, the Sabhas have powers not only to ask questions and discuss the budget but also to initiate legislation. The Samant Sabha or upper house acts as a revisory body for legislation sent forward from the Praja Sabha or lower house. The whole scheme, which is clearly set out in the Ruler's proclamation, is regarded as being well in advance of the educational standards of the State and of any demands which agitators might be formulating.

The proclamation setting up the State's present constitution reads as follows:

"We Jiwaji Rao Madhav Rao Scindia always true to our faith that the well-being of Scindia's Dominion essentially consists in the well-being of our beloved subjects. We had taken an early opportunity, after assuming the reins of government in our hands, of announcing to the session of the Majlis-i-Am convened in March 1938, our firm resolve to make that body a true representative of the different shades of opinion and responsible adviser concerning the administration of Scindia's Dominion.

"Earnestly desirous to carry out the liberal policy of our beloved father of blessed memory who has bequeathed to us this sacred heritage and guided by steadfast faith in his wisdom, we reiterate his injunction that the object of good government lies in the cultivation of mutual trust between the Ruler and the ruled so that its aim may ever be to lighten appreciably the burden of government and retain for the Ruler the abiding love and loyalty of his subjects.

"Conscious of this sanctity of our trust we declare on the advice of Ministers that—

"Our subjects are entitled to the fundamental rights of good

citizens and shall possess the various civic liberties which shall include—

(*i*) Liberty of speech and liberty of the Press,

(*ii*) Liberty of conscience (freedom of religion, which had always remained the guiding principle of Scindia's Government from time immemorial),

(*iii*) Liberty of association

subject to the limitations and duties laid down by law for the maintenance of peace and order.

"The Majlis-i-Am and the Majlis-i-Kanoon shall be replaced by two Houses of Legislature, which shall be known as the Praja Sabha and the Samant Sabha, each of which shall enjoy a life of three years at the end of which each shall be reconstituted.

"In order to make the Lower House, the Praja Sabha, truly representative of the people, we have enlarged its membership to 85, out of whom 50 members will be duly elected and 35 members, including not exceeding 15 officials, would be nominated.

The method of election to both the Houses of Legislature shall be direct. In order, however, to assure ourselves that no section of our people remains unrepresented we are appointing a Franchise Committee, whose object will be to frame rural, urban, vocational and institutional constituencies so as to spread the franchise as wide as the present stage of advancement of our people would justify, and which would enable the enfranchisement up to twenty per cent of our adult population and to secure that the constituencies would be fully representative of all people, irrespective of race, caste, creed or sex.

"In order to be able to bring the needs and grievances, if any, of the people, to the notice of our Government and seek redress, the Praja Sabha will have the right of :—

(*a*) Asking interpellations coupled with the right of putting supplementary questions,

(*b*) Passing resolutions,

(*c*) Initiating Legislation, and

(*d*) Discussing the main heads of the State Budget

subject to the exclusion of any interpellations, resolutions, legislation or discussion of any nature regarding :—

1. The Ruler, his Family, the Household and the Privy Purse,
2. The Foreign and Political affairs which shall include relations with the Paramount Power, Jagirdars and the Budget connected with these subjects,
3. The Army including its Budget
4. Ecclesiastical affairs, and
5. The Constitution.

" The strength of the Upper House, the Samant Sabha, shall be forty, twenty elected and the remainder nominated including officials not exceeding12.

" The Samant Sabha will have the right of :—

(*a*) Asking interpellations and supplementary questions,

(*b*) Passing resolutions,

(*c*) Initiating and revising legislation, and

(*d*) Discussing the State Budget

subject to the same restrictions as imposed on the powers of the Praja Sabha.

" The powers so delegated to the two Houses of Legislature shall not, however, affect the inherent powers and privileges of the Ruler which shall include :—

(*a*) The power of amendment, suspension and repeal of the constitution,

(*b*) The vetoing of any Act passed by the Legislature and suspending the progress of any Bill or Resolution,

(*c*) Passing of any Legislation at any emergency or otherwise, or of any ordinance, and

(*d*) The certifying of any Bill.

" Legislation initiated in the Praja Sabha will not become law unless it is approved by the Samant Sabha and unless it ultimately receives the assent of the Ruler.

" Legislation initiated by the Samant Sabha will become law if assented to and in the form assented to by the Ruler.

" The two Houses of Legislature shall be presided over by Speakers and, in their absence, by Deputy Speakers. The Speakers will be, if possible, independent of the Executive authority of our Government and the Deputy Speakers will be elected from the Members of the respective Houses.

" It is our desire, in the course of time and in the light of the experience gained or acquired, to provide for opportunities of increasing association of the people with the administration by the State by appointing a Minister from amongst the members of the Praja Sabha who will be put in executive charge of certain branches of the administration.

" Our earnest desire in announcing these reforms in the constitution is that our administration should be responsive to the growing political consciousness of our people and that in the fullness of time they should attain the progressive realisation of their legitimate aspirations through peaceful and constitutional means by the healthy process of natural and organic growth in keeping with their economic and political development. Constitutions cannot be made to order ; they have to grow ; conventions and traditions have to be established ; and for ensuring a healthy and sturdy growth we rely on the loyalty and goodwill of our people and ultimately on the grace of

the Divine Providence whose merciful aid we humbly invoke on this historic occasion."

Preparing the Way

In order to prepare the way for the operation of the new constitution a series of notifications were issued along with the proclamation.

The first of these notifications announced that in order to implement the Ruler's announcement of civic liberties it was considered inadvisable that certain enactments and circulars should continue to exist in future on the Statute Book of the State.

It was therefore announced that the Legislative and Judicial Department Circular No. 1 of Samvat 1987 was forthwith repealed as " being repugnant to the spirit of the announcement in the Proclamation and against the privileges of civil liberty." Under this circular no political meeting could be held in the districts and tehsils without the permission in writing of the subhas or tehsildars, and in the capital without the permission of the Inspector General of Police. Other restrictions under this circular included a ban on hartals and processions without the permission of the designated authorities, a ban on burning foreign cloth in public, a ban on salutations of the national flag and bans on organisations formed to boycott foreign goods, and on picketting liquor shops. Punishment for offences under this circular could be six months imprisonment or Rs. 500 fine.

This notification also announced that the following legislation would be submitted to the newly constituted Legislatures for amendment, repeal or further continuance at their discretion:

1. Chapter II of the Registration of Societies' Act, Gwalior, of Samvat 1979 referring to the compulsory registration of societies which were started for the purpose of political or social reforms.
2. Section 63 (chh) of the Gwalior Criminal Procedure Code under which the Inspector General of Police is authorised to require any person to confine himself to certain limits or to leave certain areas.
3. Section 522 of the Gwalior Penal Code—under which it is an offence to start a press or publish a newspaper without the permission of Government.

A second notification set up a Franchise Committee consisting of the Federal Secretary, the Political Secretary, the Secretary for Law and Justice, the Codification Officer and three non-officials representing the people. They were instructed to investigate and report on the basis of franchise for each of the two Legislatures; the arrangement of constituencies for the State, including Jagir population; the method of immediate enfranchisement up to twenty per cent. of the adult population of the State; the mode and method of election of the members to each of the two Houses of Legislature in a manner suitable to their respective functions; and the definition of the words

" bona fide citizen of the State." Emphasis was laid on the necessity of reporting at an early date.

Finally, arrangements were announced for the opening of a Public Relations Office in charge of a Public Relations Officer. This Office was intended to be a medium through which responsible people organised in properly constituted bodies could present constructive ideas and schemes for the benefit of the people and the State and to promote the cordial relations already existing between the Ruler and his subjects.

GENERAL ADMINISTRATION

The general day-to-day administration of the State is carried on by eight main departments—Foreign and Political, Army, Home, Revenue, Finance, Law and Justice, Police, and one Minister without Portfolio. These Ministers form the Gwalior Executive Council at the head of which is H. H. the Maharaja. This system takes the place of the previous council of ten members presided over by H. H. the Maharani which acted during the Ruler's minority.

The reorganisation of departments and portfolios was carried out some months after the Maharaja assumed his ruling powers, the underlying idea being that all nation-building departments—education, agriculture, co-operation, irrigation and the like—should be placed under one Minister; while one Minister, free from the routine work of departments, should be available to tour the districts. The latter two Ministers form a permanent committee for the disposal of appeals and revisions of a non-judicial character; and under the presidentship of the Minister for Law and Justice they act as members of the Judicial Committee. However, the work of these two Ministers in touring the districts and acting as a liaison between the Council in the capital and the people in the outlying areas is considered to be of prime importance especially in view of the number of nation-building schemes now going forward in the State.

The subjects included in the departmental portfolios are as follow:—

Foreign and Political Minister

Crown, Federal and Inter-State matters are dealt with by this Minister; also boundary disputes with neighbouring states, extradition demands, passports, etc. He also controls the two Vakils of the Gwalior Durbar at Poona and Gwalior. Internally, the jagirdars and the Court of Wards come under this department.

Army Minister

This Minister is in charge of the State Army.

Home Minister

Nation-building activities of all kinds have been brought together in the Home Minister's portfolio. In 32 subjects are such outstanding matters as education, medical services, physical culture, archæology, municipalities, town improvement, electricity, water works, P.W.D., irrigation works under construction, jails, transport, criminal tribes, and markets.

Revenue Minister

In addition to the more usual subjects of land revenue and settlement, customs and excise, the Revenue Minister includes in his portfolio forests, mines, quarries, minerals, rural development, agricultural laboratory, animal husbandry, co-operative societies, agricultural banks.

The Finance Minister

The budget, audit, funds, investments, stamps, coinage, mints, banking, pensions and gratuities, loans and treasuries are in the charge of the Finance Minister.

Minister for Law and Justice

Appeals and Nigranis, the judicial administration, and previous to the new Constitution, the Majlis-i-Am and Majlis-i-Kanoon are in the portfolio of this Minister who also has the work of publishing codes, digests, etc., giving legal advice to the Durbar and enforcement of the press laws.

Minister for Police

This Minister is in charge of the Police Force.

Durbar Records

The Gwalior Records Department was organised in 1906 to replace the system whereby each Department of the Government was responsible for the preservation of its own papers. This change meant that not only are records preserved more satisfactorily than if a large number of individuals were responsible, but also it is easier to refer to old files.

The Records Department, which today comes under the Home Minister, is the depository for all records of the Secretariat and the other Departments. Here all the Durbar's papers are in the keeping of the Inspector-General of Records who is responsible for classification and preservation. Files are classed according to their nature—those which are to be permanently preserved and those which are kept for a limited period only and then destroyed.

Rules for classification, preservation and destruction have been framed, and in order that the working of the Records Department in the districts should be uniform with that at headquarters, the Inspector-General is held responsible for the inspection of records throughout the State and for arranging them according to the rules.

The old sets of records formerly kept in the Munshi Raja, Chitnis and Fadnavis families have been acquired by the Durbar and have been classified and preserved separately from the ordinary records.

In addition to the Records Department, the Inspector-General of Records controls the Secretariat Library and the Secretariat Press. The library contains more than 8,000 volumes and the press is entrusted with the printing of official proceedings and reports of a confidential and important nature.

BUILDING THE NEW GWALIOR

HEALTH

THE vast majority of Gwalior's people live in 46 towns and 10,852 villages. Practically all these settlements are increasing in size, for in common with the whole of India, Gwalior State showed an increase of ten per cent. in its population between the years 1921 and 1931. In the latter year 4,18,224 people lived in Gwalior's towns and the census returns showed that the population was increasing at more than double the average rate. Such a phenomenon poses a series of very definite problems for the administration of the State. The modern conception of the maintenance of public health has brought matters such as town and village planning, water supplies, sanitation, supply of electric light and power, and medical relief prominently into the foreground.

Town Improvement

Gwalior has to thank the late Maharaja Madhav Rao for the inception of its Town Improvement Trust which during its existence has carried out about 50 schemes in Lashkar, and 25 in Ujjain. Notable are Chhatri Bazaar, Daulatganj and Phalke Bazaar at Lashkar in which town more than Rs.14 lakhs have been spent; and the Indore Gate Road and Dewas Gate schemes at Ujjain where over Rs.10 lakhs have been spent.

Even more vigorous efforts are to be made however, and in 1939 the Durbar sanctioned a sum of Rs. 15 lakhs to be spent at different places. The Town Improvement Trust will shift its headquarters to the town where it is for the time being carrying on work. In addition to new houses for middle and working class people, built by the Lashkar Municipal Committee, a scheme for constructing a model colony, Jayanagar, outside Lashkar, has been drawn up. Neat and clean houses of good design will be built, and the amenities of a modern town such as extensive playgrounds and parks are included.

The Trust recently completed flood prevention work costing Rs.55,000 at Ujjain and an improvement scheme of Rs.41,000 at Bhilsa. The Khander clearance scheme at Ujjain, costing over Rs.27,000, is nearly complete. An air survey of Ujjain has been arranged. The annual budget of the Trust's permanent establishment is met by an investment of Rs.10 lakhs by the Finance Department.

Water Supplies

The general policy of the Durbar is that all towns from the size of district headquarters upwards should eventually be supplied with pure drinking water. In the past few years this work has been steadily pushed forward so that in addition to the capital and Ujjain, Shajapur, Mandsaur, Shivpuri and Sheopur now have supplies while work is in progress at Morena. Schemes have been prepared for Bhilsa, Bhind, Khachraud and Shujalpur.

The first schemes for the supply of water to Lashkar were drawn up in 1906 when plans were made to take water from the Ramova Reservoir and the Sank River. These plans, however, came to nothing, and it was not until 1926 that the Council of Regency sanctioned the construction of a scheme which would draw its supplies from the Tigra Irrigation Reservoir, about 11 miles from the capital.

The foundation stone of the power house, which was incorporated in the water works scheme, was laid by Lord Irwin, then Viceroy of India, in 1929, and the scheme was completed the following year, water being supplied to Lashkar early in May.

The water works can supply 4½ million gallons of water a day, which amounts to 30 gallons a head each day for a population of 1,50,000. As the present population of the capital is about 1,12,000, there is a sufficient margin for expansion. The water leaves the Tigra Reservoir by the Tigra Canal in which it flows as far as Kuleth whence the Maharajapur Branch Canal carries it to Moti Jhil. Here it is drawn off to be filtered and chlorinated and afterwards pumped up to a height of 200 ft. to the service reservoir on Rakkas Hill. From here it is distributed to Lashkar, Gwalior and Morar. Since the supply was brought into the capital the demand for water has been so great that an additional 12 miles of mains have had to be laid. The total cost of the water works and water mains is Rs.21½ lakhs. The power house with its capacity of 2,000 K.W. has three steam turbo generators—one of 1,000 K.W. and two of 500 K.W. These provide power not only for pumping the water supply up to the Rakkas Hill reservoir, but also supply the town with current. The cost was Rs.5½ lakhs.

Ujjain presents a rather different problem in water supply owing to the demands made by the seasonal influx of pilgrims—particularly at the Singhast Mela. The supply is taken off the River Sipra, and a masonry barrage has been erected across the river, below the intake, to ensure a sufficient supply of water in the infiltration gallery. A pumping plant capable of raising 3,000 gallons a minute has been added and other improvements include an elevated tank of 2,00,000 gallons capacity near the Gopal Mandir Chowk, replacement of the pumping main and laying of additional mains in the city, and the provision of a temporary distribution system in the sadhu camps at the Bathing Ghat and the Mangalnath Ghat with 450 taps. The cost was Rs.5,70,000.

Shivpuri, which had an unsatisfactory water supply, has had Rs. 1½ lakhs spent on its water works. The scheme in progress at Morena is estimated to cost Rs.3 lakhs. At Sheopur improvements have cost Rs.9,700.

Drainage

The provision of sewerage systems normally accompanies the supply of water, though there is of course the necessity in many areas of removing storm water as well.

Lashkar's drainage system was first discussed in 1906 when the first water supply schemes were also being drawn up. A scheme of construction was not however sanctioned until 1926, construction commencing the following year. The scheme provides open drains throughout the city for the removal of sullage water. These discharge into the sewers in the main streets, which are connected to intercepting sewers laid in the beds of the three nalas which previously drained the town of storm water. The sewage disposal plant is three miles beyond Old Gwalior and there is a sewage farm of 500 acres for the disposal of sewage by land treatment.

The nalas which traverse the city have been trained to prevent stagnation of water in the city. A number of street sewers have been added to allow direct flush connections from the houses, and as result of the growing popularity of this system a further Rs. 95,000 has been spent on additional sewers in the city.

The main scheme was completed by the beginning of 1936, the total cost amounting to Rs. 25½ lakhs. The first stage of a scheme estimated to cost Rs. 1,80,000 has been completed in Gwalior, and drainage works recently completed in Morar cost Rs.1,63,564. The scheme for Shivpuri, which has been sanctioned, is estimated to cost Rs. 3,71,830.

At Ujjain extra drains have been laid to prevent sullage water from the city falling into the Bathing Ghats, a pumping station has been installed and a sewage farm laid down. A scheme costing Rs. 32,000 for draining away storm water has been completed at Madhonagar, Ujjain.

Drainage schemes for Bhilsa, Guna, Mandsaur and Barnagar are in preparation.

Electricity Supplies

The Durbar considers electricity supplies to be among the vital needs of the State's towns and the general policy is that towns of the size of district headquarters and upwards should be supplied. At present the Lashkar—Gwalior—Morar group and Ujjain are supplied with electric power—in the case of Lashkar by the Irwin Power House already mentioned in connection with the water works. In addition to the turbo generators now developing 2,000 K.W., space has been reserved in the power house for an additional turbo generator set.

Licences have been granted for the electrification of the towns of Bhind, Bhilsa, Guna, Morena, Barnagar and Mandsaur. The Durbar is also examining the possibilities of hydro-electric power in the State and in this connection a hydro-electric survey of Malwa has been completed. The possibilities of the Harsi Dam are also under consideration.

MEDICAL RELIEF

Western medicine and surgery were practically unknown in Gwalior State until 1887 when a Medical Department was organised to provide relief according to the methods of western medical science. A modest beginning was made with half a dozen institutions and as these gained in popularity, new hospitals and dispensaries were opened in succeeding years. The older institutions were reorganised and their staffs and equipment increased to meet the growing volume of work.

Today there are 144 institutions working throughout the State and they include hospitals, allopathic, Ayurvedic, Unani and Jagir dispensaries, a mental hospital, a leper asylum and a home for invalids. Women doctors have been appointed in every district in the State, and special arrangements are made for medical relief for school children and students.

Among the hospitals two big institutions with up-to-date equipment and buildings are worth mention. They are the Jaya Arogya Hospital at Lashkar and the Civil Hospital at Ujjain. The Jaya Arogya Hospital has 280 beds, with medical, surgical and gynæcological wards and well equipped X Ray and pathological sections. There is a separate T.B. ward with about 20 beds. In addition there is a maternity ward in a separate building in the hospital premises, with 40 beds. A new building for the operating theatre and the X Ray department—the Maharani Gajra Raja Surgico-Radiological and Pathological Institute—is under construction. It is to be equipped on the most modern lines. The Madho Dispensary, the out-patients' department of the Jaya Arogya Hospital, is situated in a separate building and has got medical, surgical, ear-nose-throat, eye and dental sections, each in charge of a medical officer.

Another hospital for Lashkar—the Princess Kamla Raja Hospital for Women and Children—is planned, and the foundation stone has already been laid by H. E. the Marchioness of Linlithgow.

A new building and equipment have been provided for the Civil Hospital, Ujjain. It now has 140 beds with well equipped X Ray and laboratory sections. Fresh additions and improvements to these hospitals are being effected from time to time.

The Civil Hospital at Guna was taken over from the Agency Surgeon in 1907 and handed over to the Medical Department. Similarly the dispensaries in Malwa and the Sardarpur Hospital, which were under the administrative control of the Residency Surgeon, Indore, and Agency Surgeon, Bhopal, respectively, were taken over by the Durbar in 1908.

Four Year Plan

To afford medical relief on a wider scale to the people of the State, a detailed scheme for extensions and improvements was sanctioned in 1936. Outstanding features of the scheme are :

A building programme extending over four years (buildings worth Rs. 3 lakhs are already completed or in hand by the P.W.D.).

Opening of five new allopathic and four new Ayurvedic dispensaries.

Remodelling and re-equipment of the dental section, Jaya Arogya Hospital.

Large grant for additions to equipment of institutions.

Additional grant for the purchase of modern appliances and instruments.

Grant for the purchase of X Ray apparatus for Mandsaur and Guna Hospitals.

Provision for the appointment of assistant surgeons and women sub-assistant surgeons at all district headquarters.

Revision of grades and increment in the scale of salary of medical officers.

The sums allotted for this scheme were Rs.1,08,400 recurring and Rs.9,92,322 non-recurring.

Maternity and Child Welfare

The first steps to improve maternity conditions in the State were taken in 1902 when classes were started to train dais at Lashkar and Ujjain under the Victoria Memorial Scholarship Fund. These classes proved very successful and almost all dais at district and tehsil headquarters have now been trained. In addition, training is also given to illiterate dais. Coaching is given only where maternity homes exist. The position is in fact so good that a circular has been issued prohibiting untrained dais from undertaking maternity cases in Lashkar, Gwalior, Morar and Ujjain, since practically all the local dais have now been trained.

The fight against infant and maternal mortality was carried a stage further in 1924 when the Jija Maharaj Balrakshak Sabha was established to carry on propaganda for maternity and child welfare work, open ante-natal and post-natal clinics, and infant welfare centres. It also organises health and baby weeks.

At present there are 16 maternity homes in the State, the centres including Lashkar, Morar, Gwalior, Ujjain, Mandsaur, Shivpuri, Bhind, Bhander, Agar, Barnagar, Bhilsa, Shajapur and Khachraud.

Ayurvedic and Unani Dispensaries

A scheme to open Ayurvedic and Unani dispensaries at the headquarters of Panchayat boards was sanctioned in 1926 and was introduced in Bhind and Shajapur districts to begin with. A scheme for giving grants in aid to municipal Ayurvedic dispensaries was also sanctioned.

At present there are 33 Ayurvedic and Unani dispensaries in the State and in 1937-38 2,05,516 patients were treated in Ayurvedic dispensaries and 26,507 in Unani dispensaries. About Rs.18,000 is spent on these dispensaries, but in order to extend these medical facilities a scheme for the establishment of dispensaries by giving subsidies is under the consideration of the Medical Department.

The use of indigenous drugs by qualified medical men is also being encouraged by the Medical Department, and with this object in view the book " Medical Plants of Gwalior," compiled by the late Major V. M. Phatak, has been published by the Medical Department and supplied to all dispensaries for the use of medical officers. The number of patients thus treated is on the increase, the number in 1938 being 4,18,077 as compared with 3,42,217 four years previously.

Ambulance and Red Cross Work

The Gwalior State centre of the St. John Ambulance Association was started in 1910 and for many years this centre has been the foremost among the States in ambulance activities, the number of candidates trained being the highest—26,782. The Gwalior Army and Police teams have won trophies a number of times in All-India competitions. Seven sub-centres have been opened to carry on the activities of the Association, and in 1936 a scheme of expansion was sanctioned from Gwalior's share of the Silver Jubilee Fund—Rs.91,591. The establishment of road-side ambulance stations at Lashkar and Ujjain is under consideration.

The Gwalior State centre of the Indian Red Cross Society was started in 1934 with the object of promoting maternal and infant welfare; supplying medical comforts to hospitals; promoting training for nurses, midwives and health visitors; caring for T.B. sufferers, and encouraging popular health education.

The Society has six sub-centres at places where sub-centres of the St. John Ambulance Association also exist: Gird, Bhind, Shivpuri, Guna, Mandsaur and Ujjain.

Nursing

The nursing service has been reorganised. For many years male nurses were employed but in 1931 a scheme for employing only qualified female nurses was sanctioned, and nurses holding the Bombay Presidency Nursing Council Diploma were employed as charge nurses. A training class for probationer nurses was opened at the Jaya Arogya Hospital in 1931 but had to be discontinued two years later. A proposal is under consideration to re-affiliate the Jaya Arogya Hospital to the Bombay Nurses, Midwives and Health Visitors Council as a training centre for nurses. At present there are 34 B.P.N.A. nurses, one matron and 18 working nurses employed in the State hospitals and dispensaries.

Scholarships and Studies

Medical training by State subjects and special studies by medical officers in State employ are encouraged by the Durbar. Scholarships are awarded for study abroad; medical training in colleges; for S.A.S. courses in medical schools; for deputation on special studies, and for the health visitors' course.

A sum of Rs.5,000 a year has been provided in the budget for the foreign scholarship. Provision has been made at the Grant Medical College, Bombay,

to admit one student a year for the M.B.B.S. course, the State paying a capitation fee of Rs.1,000 a head a year. Nine seats have been allotted to State candidates for the sub-assistant surgeons' course at the King Edward Medical School, Indore. Recent deputations on special studies include a senior medical officer sent to England for a special course in cardiology, another to Singapore for malariology and two for special studies in nutrition at Coonoor.

Anti-rabic treatment in the State came to the forefront in 1912 when arrangements were made to send indigent people bitten by rabid animals to the Pasteur Institute at Kasauli at State expense. Nowadays anti-rabic treatment is given at the Jaya Arogya Hospital as well as at other centres outside the State, whichever may be the nearest. The expenses are paid by the State.

Quinine packets at nominal prices are sold through the State Post Offices and the Panchayat boards are supplied with tablets at nominal cost for distribution in the villages.

A lunatic asylum, now known as the Mental Hospital, was opened in Lashkar in 1920 and is in charge of the Superintendent of Dispensaries, Gird Circle, who recently undertook special training in mental diseases in England. The leper asylum is at Ujjain and was taken over by the Durbar from the missionaries who maintained it. It is being gradually improved.

The Gwalior Medical Association was founded in 1925. At present there are six branches at the headquarters of the circle superintendents.

Finance and Administration

Out of the budgetted amount of Rs.6,47,444 the expenditure in the year ending June 1938 was Rs.4,50,672. This amount provided for all the civil medical institutions, maternity homes, contribution to the Indore Medical School and grants towards ambulance and child welfare work. The budget for the Military Medical Department was Rs.78,024 out of which two brigade hospitals and six unit hospitals are maintained at Gwalior, Agar and Ujjain.

The civil Medical Department is under a Chief Medical Officer and Sanitary Commissioner. There are six superintendents of dispensaries, and the superintendent, Jaya Arogya Hospital. A woman superintendent of maternity homes supervises the work of maternity homes at headquarters and inspects the maternity homes of the State. Assistant surgeons and women doctors have been posted at the hospitals at district headquarters. There are 81 sub-assistant surgeons in charge of dispensaries in the districts and 38 vaidyas and hakims have charge of the Ayurvedic and Unani dispensaries. The progress of the State's medical services is shown by the following tables.

Medical Institutions

Special Class hospitals and dispensaries	11
First Class do. do.	8
Second Class do. do.	14
Third Class do. do.	14
Fourth Class do. do.	9
Unclassed institutions	88
Total ..	144

Medical Department's Growth

Year.	No. of Hospitals and Dispensaries.	Expenditure. Rs.
1887	5	18,078
1891	11	34,352
1901	21	53,093
1911	36	1,75,440
1922	43	2,03,168
1927	100	4,65,676
1931	135	5,13,146
1935	140	5,36,270
1938	144	6,47,444

During 1937-38, 1,60,355 patients received treatment at the State hospitals and dispensaries, and in addition 2,51,657 patients were treated at Municipal, Ayurvedic, Jagir, Railway and Unani dispensaries. The Ayurvedic and Unani Pharmacy under the control of the Department manufactures and supplies Ayurvedic and Unani preparations on a commercial basis.

Sanitation

The promotion of sanitary conditions in the villages is part of the work of the Department and in 1935 a scheme of village sanitation was reorganised. The districts of Gird and Shajapur were selected for the work, a sum of Rs.25,000 being sanctioned for each district.

The work of the sanitary staff is the construction of new and sanitary wells, repair of existing wells, propaganda work by magic lantern demonstrations, distribution of pamphlets, and lectures and suggestions.

EDUCATION

Education in Gwalior has a long history. In very early days Ujjain was renowned as a seat of learning, and it is even said that Sri Krishna was sent there as a student, rather than to Benares. Centuries of disturbances, however, wiped out practically all signs of organised education and by the middle of the 19th century there were few schools except a handful of shalas, madrassas and maktabs which imparted indifferent instruction to their pupils.

The first school organised on western lines was established in Lashkar in 1846—an institution which has since grown into the well-known College. This was followed by 20 other schools with 2,400 pupils in all. Organised education made rapid progress and in 1857 a Government notification announced that all villages with over 2,000 inhabitants would have schools, the fees to depend on the boys' capacity to pay. Teachers were to be paid from four to five rupees a month.

In 1860 Maharaja Jayaji Rao was able to take a personal interest in the State's educational programme and he sanctioned a budget of Rs.17,500 for schools. This was increased the following year to Rs.20,900 and in 1863 a regular Education Department was set up with a budget of Rs.26,000. Twenty-three years later, on Maharaja Jayaji Rao's death, there were 90 schools and 5,400 pupils. The year 1890 saw the production of the Gwalior Education Manual and the division of schools into four grades : lower primary, upper primary, anglo-vernacular and high schools.

The beginning of the 20th century saw rapid progress under the energetic guidance of Maharaja Madhav Rao. By 1911 there were : one college, four high schools, 29 middle schools, 321 primary schools, 10 girls' schools and seven special institutions, with 21,560 students in all. The education budget was Rs.3,55,358. By 1925, the year of Maharaja Madhav Rao's death, the number of educational institutions in the State had risen to 1,056, with a budget of Rs.9,92,368. Maharaja Madhav Rao took special care that his education plans should not outgrow the funds available in future years, by laying down an education fund which nowadays yields an important proportion of the money needed year by year. Education in Gwalior is thus to a certain extent independent of the changes which may occur in the taxation budget. At present the education fund yields more than Rs. 7 lakhs a year while in 1938 the total education expenditure was Rs.13,76,638. Since then the State education budget has been increased to over Rs. 16 lakhs.

In 1938 there were 2,80,000 boys and 2,48,000 girls of school-going age in the State. The number of pupils in the schools represented 25.1 per cent, of the boys and 4.854 per cent of the girls. The boys had two colleges, 78 secondary schools, 1,261 primary schools and 21 special schools; the girls one college, 15 secondary schools, 155 primary schools, and one special school. In 1938 there were 70,294 boys at school as against 69,520 in 1937 and 12,058 girls as against 12,340. There were also 158 self-supporting schools with 3,678 boys in them and seven with 284 girls in them.

Rural Education

Since the accession of the present Ruler much energy has been shown in opening more schools, particularly primary schools, and it is intended that in the near future every important village in the State shall have its own school. Primary education is already free in the State and it is intended to make it compulsory in Lashkar, Gwalior, Morar and Ujjain.

The present regime has also seen a complete overhaul of primary and middle school courses. The new primary course is intended to be really useful to village people and contains a strong bias in favour of manual training. The changes in the middle course are even more far reaching. English has been simplified and systematised and an alternative course of basic English is available for those who do not wish to take higher English. The vernacular language courses have been modernised and geography has been made a joint subject with history instead of being relegated to the background. Hygiene, a new subject, has been introduced and practical courses in carpentry and weaving are available. An even more radical charge has been the provision of a complete alternative middle examination which is intended to reduce the ranks of the educated unemployed by giving students from rural areas a course which will not encourage them to seek admission to high schools, but will train them for better village life.

In this course the only purely academic subjects are the mother tongue and mathematics (which are dropped after class VI). Other subjects are hygiene and first aid, agriculture, rural economics (including an elementary knowledge of co-operative credit and marketing) and a choice from a long list of crafts suitable for all localities and all castes.

The problem of wastage is being carefully studied and with the development of village libraries it is hoped that village schools will become real centres of village life and that illiteracy will thus gradually disappear.

The present regime is making a systematic increase in the number of primary schools—189 were opened between 1936 and 1939 and 183 more were ready in the latter year.

An outstanding event has been the raising of the Princess Kamla Raja Girls' High School to the status of an intermediate college. This institution is the only one of its kind in the jurisdiction of the Ajmer Board. It is hoped that it will become a degree college in the near future and in that case it will hold a unique place in the whole of Central India and Rajputana.

A new boys' high school has been opened at Bhind and the anglo-vernacular middle schools at Morena and Shivpuri have been raised to high school status. The anglo-vernacular middle schools and vernacular middle schools throughout the State have recently been thoroughly overhauled and their staffs and libraries are being progressively improved. Arrangements have been made with Benares Hindu University to train each year a number of graduates who are already in service.

Higher Education

The Victoria College at Lashkar has been equipped with chairs in all subjects covered by the B.A. and B.Sc. courses of the Agra University and Ajmer Board examinations. Its academic record, especially in science, is high. The Madhava College at Ujjain had classes up to the intermediate standard only, until 1939 when degree classes were opened.

The Princess Kamla Raja Intermediate College, already mentioned, represents the apex of attempts to promote female education in the State during the past 40 years. The first girls' school in the State was opened in Ujjain in 1897 with 50 pupils. Another girls' school was opened in Lashkar the following year and is today a full fledged high school. More institutions were established and in 1901 the Education Department opened a female education section with a woman superintendent. By 1912 female education had a budget grant of Rs.60,000 and since then there has been continuous progress. Details of the number of girls' schools at the present day have already been given, and with the decrease in the number of child marriages and the relaxation of purdah it is expected that female education will make rapid strides.

Scindia School

Run on the lines of an English public school and designed to train principally the aristocracy of the State to take their share in the administration, the Scindia School is a unique feature of the Gwalior educational system. Originally founded as the Sardars' School in 1897 in the Jalbihar buildings inside the palace premises it was intended by Maharaja Madhav Rao to be exclusively for the use of the sons of Sardars of the State. The school moved to its present premises on Gwalior Fort in 1908 in which year the Military School was amalgamated with it, and an endowment fund established.

In 1933 the Regency Council felt that the institution would be far more useful to the Sardars, the State and the country if it were run on the lines of an up-to-date public school. It was therefore reorganised and renamed the Scindia School. Fifty places in it are reserved for the sons of Gwalior Sardars and jagirdars and priority of admission is granted to sons of Gwalior citizens. The school also caters for boys coming from all classes of the public whether from British India or the States.

In the school pupils can prepare themselves for the Senior Cambridge or Matriculation examinations and special attention is paid to physical culture and the development of character.

The school has its own playing fields, riding ground, swimming bath, gymnasium, tennis courts, resident doctor, etc. Though the fees are low, several scholarships are available for the sons of jagirdars who need some help to educate their children. Provision has also been made for founding additional scholarships on an open competitive basis and for the reservation of a certain number of places for scholarship holders from other States and from institutions approved by the Durbar.

Technical Education

Technical education in the State is being overhauled and made more practical. Plans have been matured for starting new technical institutes at Mandsaur and Narwar. The Board of High School and Intermediate Education, Ajmer, has recognised the Central Technical Institute Diploma as a qualification for teachership in the IX and X classes for vocational training in carpentry and metal work. Many of the schools are either equipped with agricultural farms or carpentry or weaving classes.

The first technical institute was started in Lashkar in 1905 and later a textile institute was started at Chanderi for the revival of the decaying art of weaving fine fabrics. In 1915 the scheme was further developed with a Central Polytechnic Institute at Lashkar, textile institutes at Narwar, Mandsaur and Chanderi and a technical institution at Ujjain. Very satisfactory results were obtained. Not only did industrial and commercial concerns in the State obtain skilled workmen, but many of the boys started small workshops and succeeded in earning an independent livelihood.

Courses at the Central Technical Institute at Lashkar include mechanics', fitters', carpentry, weaving technology, manual weaving and dyeing and printing courses. Electrical and plumbing courses are planned. The Institute conducts examinations of the City and Guilds of London and the Bombay Government drawing examinations.

Special Schools

THE MADHAV BRAHMACHARYASHRAM, Shivpuri, was started in 1929 for the education of the sons of Muafidars (persons paid cash allowances or given holdings for religious services performed by them) in such a manner as to fit them for the proper discharge of their religious and social obligations. There were 34 students in 1938.

THE MADHAV MUSIC COLLEGE, well-known beyond the State for its work, was started in 1918 at the instance of Professor Bhatkande, the celebrated musician of the Deccan. It has developed into a full fledged college with five year and three year courses in vocal and instrumental music respectively. There is also a research class. There were 355 boys and 25 girls in the college in 1938. Gwalior has since time immemorial been an important home of Indian music. Tansen, the famous musician of the court of Akbar, is reputed to have been a student in the school which was founded by the Rani Mrignayani, the Gujri queen of Raja Man Singh. Today the Madhav Music College is carrying on Gwalior's great musical traditions and attracts scholars from distant places to its master musicians.

THE SANSKRIT MAHAVIDYALAYA was founded after Pandit Pran Nath reorganised the system of Sanskrit education in the State about 1885. In 1931 this Sanskrit College was made an independent institution accommodated in extensive buildings in the Hujrat Paiga and it is aimed to provide the highest Sanskrit education in the State. A hostel is attached to

the college which has about 100 students and is under the control of Pandit Sadashiv Shastri Musalgaokar, a Sanskrit scholar of repute.

Other special schools include the Patwari school and the Ayurvedic school which is under the direction of experienced Vaidyas and gives training in Ayurvedic medicine. Candidates are examined by the Education Department and diplomas awarded. The school is co-ordinated with the Ayurvedic Pharmacy where students can learn practical methods of manufacturing standard preparations.

Bhils and Harijans

The aboriginal tribes in the State are receiving special attention. There are two residential schools for Bhils and Bhilalas and a number of day schools have been established at suitable centres in the forest tracts. In 1938 there were 11 schools and three free hostels for Bhil and Bhilala children, and two more schools for the Saharias, a tribe living in Sheopur district.

There are 17 State and four aided Harijan schools, and where local sentiment permits, the Durbar places no obstacle in the way of Harijans entering the ordinary State schools. A few aided night schools in the larger towns receive departmental encouragement in order to foster adult education.

Health and Administration

Close attention is being paid to the health of school children in the State. The Maharaja recently donated a lakh of rupees from his Privy Purse to found a students' medical relief fund. The number of medical inspectors has been raised from one to three, and they have been adequately equipped with medical supplies, especially with remedies to combat the ill-effects of mal-nutrition—the most frequent cause of bad health among school children. A midday meal consisting chiefly of sprouted gram, the high nutrition value of which is recognised by the medical profession, is being given in a very large number of schools in every district. All large schools have been provided with drill masters, and a modernised and graded course of exercises and games has been drawn up on the advice of experts. Scouting has been introduced into almost all the big schools. The number of regular Scouts is now about 3,000 ; and the Girl Guides have also made a modest beginning.

During the past five years Rs. 5 lakhs have been spent on school houses, and further buildings are being erected.

Almost all the schools and institutions have been equipped with libraries of their own, and the Central Library at Lashkar has been provided with books on all subjects for popular reading. The number of volumes has been raised to 11,000 and a scheme for circulating libraries all over the State is under consideration.

The system of school inspection has been overhauled and in addition to the six circle inspectors there are now 17 assistant inspectors. The inspectress of girls' schools has now an independent charge and she is aided by two assistants.

Jiwaji Rao Observatory

The historic Shri Jiwaji Rao Observatory at Ujjain has long been a place of pilgrimage for travellers. The addition of such instruments as the Gol Yantra, Sanku Yantra and Tithi Yantra has revived the utility of the observatory as a very useful aid to astronomers and compilers of calendars and almanacs.

Long famous as a centre of Hindu astronomy Ujjain has been accepted as the zero meridian of Hindu astronomy and geography. The present observatory was built a little before 1730 by Raja Jai Singh of Jaipur, the Governor of Malwa for the Emperor Muhammad Shah. After his death in 1743 the observatory was allowed to fall into disrepair until the Council of Regency sanctioned the large sum necessary for the restoration of the masonry and the instruments under the expert guidance of Pandit Gokalchand Bhawan, a learned astronomer of Jaipur. The observatory includes four masonry instruments :

The Samrata Yantra, or equitorial sundial, on which time can be read by a shadow thrown on a marked scale on the quadrants ;

The Nadi Valaya Yantra or hour circle ;

The Digamsh Yantra, or azimuth instrument, which enables the determination of the azimuth of heavenly bodies ;

The Bhitti Yantra, or transit instrument, which permits the determination of the time of transit of heavenly bodies.

Also at Ujjain is the Prachya Granth Sangraha in which are collected over 5,000 manuscripts. This association is doing important practical work and its publications are gaining appreciation in responsible quarters among archeologists and historians.

GWALIOR'S ECONOMIC WEALTH

AGRICULTURE

SINCE prehistoric times sections of Gwalior territory have been famous for their agricultural prosperity. Outstanding among these territories is Malwa, still noted for its deep black soil and the excellent crops which are raised there. About 80 per cent. of the population of the State are dependent on agriculture for their livelihood and it will therefore be realised that among the factors making for Gwalior's economic prosperity agriculture is of prime importance.

Out of the total area of 3,26,69,768 bighas, 88,80,213 bighas are cultivated (4,84,271 bighas being irrigated). Another 61,94,416 bighas are regarded as culturable, 74,77,220 bighas unculturable; while 34,29,105 bighas are under forests. It will thus be seen that about one-quarter of the area of the State is at present under crops. Efforts are being made to bring another fifth of the State which is available for agriculture under the plough.

The produce of this land yields of course a very considerable part of the State's revenue. During 1937-38, a collection of 15 annas 6½ pies out of the rupee demanded, yielded Rs. 95,46,578.

The chief crops grown include wheat (25,86,344 bighas), jowar (20,26,182 bighas), gram (12,91,190 bighas), cotton (9,91,094 bighas), bajra (4,44,679 bighas), oil seeds (tilli) (4,06,801 bighas), rice (76,810 bighas), sugar cane (24,366 bighas) and tobacco (11,764 bighas). There is also a cultivation of opium poppy, 1,211 maunds of raw opium being produced in 1937-38. The livestock owned in the State during 1937-38 is shown in the following table:—

Plough Oxen	11,61,885
Other „	59,473
Cows	9,89,001
Calves	9,23,688
Buffaloes	4,88,973
Horses & Ponies	57,872
Sheep	2,80,935
Goats	6,60,500

In the same year there were 4,05,459 ploughs and 1,47,380 carts in the State.

According to the Director of Agriculture, in his report for 1937-38, agriculture in the State is showing marks of degeneration. "To check the retrogression and effect improvements a scheme is the urgent and important need of the hour". With that end in view the Maharaja appointed a committee of experts who investigated conditions by interviewing the officials concerned and by collecting information from people actually working in the fields.

Agricultural Department

The State's Agricultural Department was set up in 1916 in order "to improve the general system of agriculture and to impress the zamindars by practical demonstrations as to how they can make themselves prosperous. Preparations of land, selections of seed and use of manure, as well as pointing out what soil will be good for particular crops, are the essential things to be brought to the notice of the zamindars." The Department was also instructed to attend to cattle breeding.

The programme laid out for the Department included the establishment of Central Experimental Farms at Gwalior and Ujjain, the organisation of an Agricultural Research Laboratory at Gwalior, the organisation of model villages for demonstrating improved methods of practical agriculture in each district, and the provision of depots of improved agricultural machinery with a view to its introduction by sale and hire.

Three years were needed to organise the Department, establish the farms, equip the research laboratory and train the staff. In the 20 years during which this programme has been working very considerable headway has been made, though the difficulty of making the results of research available to cultivators all over the State proved a serious problem for a number of years. Since 1931, when the Department was reorganised, however, a man trained in the science and practice of agriculture has been placed in every tehsil to undertake demonstrations and propaganda.

One of the Department's most important activities has been the introduction of improved crops, and improved varieties of jowar, bajra, tilli, cotton, wheat, gram and sugar cane are now raised in the State. In addition selected varieties of ground nuts, Spanish peanuts, paddy, arhar, tobacco, linseed, barley, turmeric and potatoes have been introduced. In 1937-38 the area under improved varieties of crops was 5,48,803 bighas and the area is increasing yearly. Banasmati Dhan seed has been introduced in the Harsi area and it is expected that Gwalior will shortly have superior rice of its own.

During 1937-38 the Central Experimental Farm at Gwalior undertook experiments on varietal trials of jowar, bajra, tilli, cotton, gram, wheat and sugar cane. At the Central Experimental Farm, Ujjain, tests were made on cotton, jowar, wheat, gram, linseed and sugar cane. Varieties which gave satisfactory results were released for distribution, 21,197 lb. of pure seed and 6,900 sugar canes being distributed from the Gwalior farm, and 45,838 lb. of pure seed from the Central Farm at Ujjain.

These experiments are important as showing which varieties are capable of flourishing in the Gwalior climate. There is a marked difference in conditions as between Gwalior northern territory and Malwa, hence the necessity for tests at both Gwalior and Ujjain. The part played by these crop tests can be gauged when it is stated that as a result of using the varieties recommended by the experimental farms, cultivators are reckoned to have made as much as Rs.12 lakhs extra in a single year from their crops.

In addition to testing and distributing improved seed, the work on the experimental farms includes the introduction and acclimatisation of improved crops grown in other parts of India; the study of important varieties of principal crops grown in the State; the study of different methods of cultivation pertaining to crop production; and the study of different types of implements for their efficiency in different conditions in the State.

Experiments in crop production have also given valuable results. Spacing experiments in gram, wheat, cotton and sugar cane have been undertaken and the results demonstrated to the cultivators. The best sowing rates for a variety of seeds have been determined and other experiments have included frequency of irrigation; cultivation of land by various implements; manure and fertilisers, and rotation of crops.

Agricultural Engineering

Improved crops and methods of production depend for their success on efficient field implements and the Department has made considerable efforts to give cultivators something better than the country plough which up to the present has been the main implement in regular use. The "Scindia Plough" designed by the Agricultural Engineering Section and manufactured in the Gwalior Engineering Works is simple in mechanism, reasonable in price and efficient in operation. It compares well with many other small iron ploughs on the Indian market. Hundreds of "Scindia Ploughs" have been sold both inside and outside the State and many more are being supplied each year.

Different kinds of harrows, cultivators and seed drills are being tried and their practical use demonstrated. The problem is the low purchasing power of the average cultivator, but even so 1,462 implements were bought during a period of five years. It estimated that in the wheat districts the use of an iron plough with doffan produces an additional profit of Rs. 12 per bigha. The introduction of sugar cane cultivation into the State has led to the development of a cane crushing mill which is cheap and efficient. It is more or less on the type of the Nahan Mill. Recently the Engineering Section organised a power crusher plant for jaggery making on a large scale at Aoda.

This Section also undertakes well boring. There are seven machines, both hand and power operated, and they are used principally to tap more water in places where drinking water is scarce. Another activity is power ploughing especially in areas which are being newly broken up. About 1,500 bighas on an average are opened up by this means each year.

Laboratories and Botany

The Agricultural Research Laboratory, with its chemical and botanical sections, undertakes analyses of soils to determine their suitability for certain crops ; tests different crops, such as fodder; sugar cane for sugar percentage ; oil seeds, etc. Chemical tests are also made of cane juice during gur making; and tests are carried out on samples received from the Mining, Forest, Medical and Commerce Departments. A soil analysis of the whole of the State is being carried out along with a soil survey. The laboratory was also called in to make analyses of samples of soils from the areas irrigated by the Aoda and Harsi dams, doubts having been expressed as to the success of crops there. The reports were highly satisfactory.

In the Botanical Section a radical change has been brought about in the system of experimental work. With the adoption of work on the latest statistical basis, major experiments on varietal tests of important crops were transferred to the Central Farms. This leaves the Botanical Section free to devote attention to improvements in local crops by pedigree culture. The Section also undertakes small growth trials for observation and further selection, the subsequent multiplication and distribution of the selected strains being handed over to the Central Farms.

Cattle Breeding and Dairying

With the exception of a few centres in Malwa, the average condition of animals in the State cannot be considered satisfactory. In order to improve present stock belonging to cultivators and zamindars, numbers of pure bred bulls are distributed free of cost through the District Boards each year. Bull breeding is undertaken at the Central Experimental Farm, Ujjain, where a herd of Malwi cattle is maintained ; and at the Maharajapur Dairy Farm, Gwalior, where a herd of Hariyana cattle is kept. By the advice of the Imperial Dairy Expert, bulls of the Tharpakar and Sahiwal breeds have been imported for crossing with the indigenous breed.

More than 120 bulls have been distributed to selected zamindars since the scheme came into operation, and steps have been taken to accelerate improvement by a vigorous campaign of castrating scrub bulls, especially in those areas where breeding bulls have been distributed. A regular cattle survey of the State is intended.

At the Maharajapur Dairy Farm Hariyana, Sahiwal, Sindhi and Sahiwal—Frisian cross breeds are kept and also Murrah buffaloes. Selection work on the basis of milk yields in the animals of the different herds is being carried on. Some of the cows born at the Dairy have given milk yields varying from 3,457 lb. to 5,192 lb. in one lactation period. In the case of good buffaloes milk yield has varied between 4,000 lb. and 6,138 lb. in a lactation period. Another branch of the work is the study of food to find cheap and nutritious types of fodder suitable for dairy animals in the State. Milk is supplied to the Palace, State institutions and the public.

Experiments in the improvement of sheep are being carried out at the Central Experimental Farm, Ujjain, where Deshi ewes are being crossed with Merino rams. The progeny of such crosses have shown great improvements in the quantity and quality of wool. A number of animals have been sold for breeding purposes.

The Durbar also has schemes on foot for rearing horses and mules for the State Army. Donkey stallions are loaned to zamindars owning mares suitable for mule breeding. Brood mares are distributed free to zamindars and the services of pedigree stallions are available to the public.

Animals bred in the State compare well with livestock in the rest of India. A bull, a cow and a heifer from the Malwa division were awarded first prizes in their respective classes at the All-India Cattle Show at Delhi in 1938, and the winning bull was also awarded a silver challenge cup offered by H. H. the Nawab of Bhopal.

Veterinary

The State maintains three veterinary hospitals at Gwalior, Ujjain and Guna, two municipal veterinary dispensaries at Morar and Gwalior and 19 itinerant veterinary assistants—about one assistant to two tehsils. The number of animal patients treated for all kinds of diseases increases year by year. In 1931-32 the number was 60,837 and in 1935-36, 1,20,052. The veterinary assistants also have to cope with outbreaks of contagious diseases and the castration of scrub animals—24,696 castrations were undertaken in 1935-36.

Demonstration and Propaganda

Demonstration and propaganda are the essential links between the research worker and his achievements, and cultivators whom these discoveries are intended to benefit. As already mentioned there is a staff of 34 naib tehsildars and five agricultural inspectors and their work is chiefly concerned with the demonstration and propaganda section of the Department. The activities of this section include: the organisation of demonstration plots and seed growers' plots; the sale and demonstration of improved implements; the distribution of fertilisers and demonstrations of methods of preservation of manures by opening manure-pits; the supply of pure bred bulls for improving the breed of cattle, and the establishment of agricultural associations.

About 4,000 demonstration plots covering between 8,000 and 12,000 bighas are laid down each year. They are intended to demonstrate to cultivators in their own fields the advantages of improved varieties of crops. Seed growers' plots total about 1,000 covering between 14,000 and 17,000 bighas. In 1937-38, 180 implements were sold, chiefly in the Malwa division, and demonstrations of implements were given in about 200 villages. Fertilisers—ammonium sulphate, bone meal, castor cake, niciphos and sodium nitrate—are distributed, 16,370 lb. being distributed during 1937-38. About 1,000 new manure pits in about 170 villages are made each year.

The distribution of new varieties of pure seed from the Central Farms has already been referred to. Improved seed is also distributed from seed growers' plots, the distribution in 1937-38 being seeds, 4,61,363 lb.; sugar cane, 3,57,712 canes; and 11,968 fruit plants. The Director of Agriculture states "The figure of total quantity of seed distributed is bound to be less and less every year; because, although the cultivators are from an economic point of view adversely situated, yet they have ceased to utilise the produce for their private consumption, and have begun to understand the utility of improved seeds. Now they reserve their stock for sowing purposes, and only the surplus seed is sold by them, which fetches better prices. The ultimate goal of the Department is to bring uniformity in the character of the crops grown, and to replace the mixed types of seeds by improved pure types."

Twelve breeding bulls were distributed during 1937-38, and the number of agricultural associations formed during the same year was 219.

Advantage is of course taken of the fairs and exhibitions held in the State to contact the villagers who attend them. Agricultural exhibitions are held at Gwalior in conjunction with the annual Gwalior Fair and in the districts in connection with the annual cattle fairs. Recently the agricultural exhibition at Gwalior was completely remodelled to suit the Department's extended activities, and practical demonstrations of bee-keeping, hand-ginning, carding, weaving, cloth printing, sericulture, lac, etc., were arranged. Possible measures to be adopted in connection with rural uplift work were explained by means of charts and models of sanitation. Also numbers of attractive charts showing the activities of the Department are used to make its work known to the public. Other agricultural exhibitions are held at Ujjain, Agar, Suvasra, Meghpura, Bijeypur and Chachaura.

In addition, the Agricultural Department staff spends a considerable time in touring the villages, giving lectures as well as demonstrations. A certain amount of improvement work is also carried out through the agency of the District Boards. It is also suggested that two agricultural schools be started at Gwalior and Ujjain, so that sons of zamindars may have thorough training and thus be a permanent source of progress in the villages around their homes.

Fruit Trees

The supply of fruit trees undertaken by the Propaganda Section has already been mentioned, and the demand for these young trees increases from year to year. This is considered a very satisfactory state of affairs as the production of fruit during periods of financial stringency will prove a useful side-line for the cultivator. The species available through the Department include mangoes, guavas, citrus and pomegranates, and it is recommended that fruit nurseries at both the Central Farms of Gwalior and Ujjain be started for the supply of young fruit trees.

Aoda and Harsi Schemes

The Aoda and Harsi areas are the chief irrigation centres in the State. The main idea underlying the schemes is to popularise the use of canal water

from the dams and induce cultivators to grow intensive money crops and thus improve their economic status. At the same time it is intended that all improvement work should be done by the cultivators themselves with the least possible official intervention. Kastkar Hitkari Sabhas have been organised to effect improvements in the villages in the areas. Seeds of paddy, wheat, groundnuts, san hemp and considerable quantities of sugar-cane have been distributed in these areas, also fertilisers. Demonstrations of green manuring have been organised, and the villagers are taking to the use of san hemp for this purpose. Demonstrations of compost making, digging of manure pits and improved implements are also features of the work. Seed unions, rural education, sanitation and free medicines are included in the scheme.

In the Aoda area a power plant has been set up for the disposal of the sugar-cane crop, and gur is made for the cultivators by the Bel system—nearly 1,220 maunds of gur being prepared in 1937-38. At the beginning of each scheme at both Aoda and Harsi certain concessions, such as exemption of water cess, were made.

Agricultural Marketing

The necessity of eradicating malpractices which create a wide price gulf between the producer and the consumer has long been recognised in the State. Maharaja Madhav Rao as long ago as 1921 made a move in the right direction by inaugurating regulated markets at important trade centres, standardising the weights and measures, licensing the middlemen and fixing their charges.

Soon after his accession the present Ruler offered his co-operation for the All-India scheme of agricultural marketing and a Marketing Section was created under the Commerce Department in 1938. Three whole-time Marketing Officers were appointed to make investigations and do development work on the lines of the system adopted in British India. They were sent for training to the Imperial Agricultural Marketing Department at Delhi and after their course started work on the following groups of produce :—

1. Cereals and oilseeds :
 Rice, sugar, lac, groundnuts, coconuts, rape, mustard and toria seed.
2. Fruit and vegetables, special crops (such as potatoes, bananas, coffee), hats, fairs and markets and co-operative marketing.
3. Live-stock and live-stock products :
 Milk, ghee, butter, sheep and goats, wool and hair, hides and skins.

In conjunction with investigations actual development work is proceeding as well, as it is essential to know how far it is possible to improve existing conditions. A permanent cure is extremely difficult on account of the overwhelming inertia of established customs, both social and economic. Preliminary surveys show that the remedy lies in standardising and grading agricultural produce in order to eliminate waste and provide a standard quality as a basis for trading. With this end in view a Bill on the lines of the

Agricultural Produce (Grading and Marking) Act in force in British India, has been drafted.

A fully equipped and up-to-date ghee grading laboratory has been established at Morena and efforts are being made to set up more grading stations at important mandis like Bhind and Pachhar.

The Marketing Section has in view a review of existing railway rates on principal commodities in order to bring rates down to a point which the present price levels of agricultural commodities can bear. Attention is also being paid to the clearance of unsold stocks in the State markets and to concessions in railway freights in order to facilitate disposal. Investigation into the possibility of increasing the regulated markets, which at present number 36, is being made.

MINERALS

The mineral wealth of Gwalior State has been known since most ancient days. There is mention of iron smelting in this part of the world in the "Mahabharata." Unfortunately under the large scale production methods of today the deposits of ore are not sufficiently good to warrant work on them.

Apart from iron, however, a long list of minerals are found in the State, and following geological and mineral surveys carried out by Government of India officials at the instance of His late Highness, pamphlets were published dealing with gold, iron, manganese, mica, coal, building materials, lead, copper and iron pyrites, clays, ochres, quartz, alkalis and sodium carbonates, bauxite, monozite, etc.

At present building materials are the most important feature of the State's mineral deposits. From the beautiful coraline limestones of Sardarpur in the south to the magnificent Gohara marble in the north; and from the cream coloured sandstone of Banmore near Gwalior in the east, to the lovely bluish-grey limestone of Nimach on the west there is an infinite store of building stone in a variety of colours, textures and qualities. The State is rich in fine sandstones, limestones, marble, slate, granites, gneisses, trap and laterite.

Next in order of abundance and economic importance come the unlimited stores of iron ores, clays, ochres, green earth, mica, felspar, glass-making materials, cement materials, bauxite (from which aluminium is extracted), secondary silica such as rock crystal, chalcedony, agate, common opals, and amethysts. There are barytes and calcite. There are also indications of lead and copper ores, but so far no deposits have been found which yield workable quantities.

Though the semi-precious stones found in the State are not produced in any large quantities, sufficient are available for their use in the pietra dura work in the cenotaph of the late Maharaja Scindia at Shivpuri. This cenotaph has been built of marble from the Gohara quarries which are on a hill about six miles from Tetarah station on the Gwalior Light Railway.

Gwalior is of course famous for the delicacy of its pierced stone carvings which are executed in the fine sandstone available in so many areas of the State. Gwalior stone was also used to build the Gateway of India at Bombay.

Mineral Industries

A few large industries have already developed as a result of all this available material. The cement works at Banmore, on the G. I. P. Railway, employ about 500 men in the works, 300 men in the quarries, and turn out about 60,000 tons of portland cement a year. It is considered that another cement factory could be operated in the Nimach area.

The Gwalior Potteries, the only successful large-scale potteries in India, make use of the Kaolin clay deposits. There are also the Geru-khadia Stores under the management of the Quarries Department.

The mica mines of Gangapur (Mandsaur district) and the green earth deposits in Bhilsa district are being worked on a modest scale, and so are the lime-kankar and quartz deposits at Antri (G. I. P. R.).

Of the minerals available, but so far not developed, the large quantities of iron ore are probably the most important. Professor V. S. Dubey, who has made a considerable study of the mineral potentialities of the State, considers that some of these ore deposits could be worked if hydro-electric power were developed. To operate them economically it would be necessary to have power of from 10,000 to 15,000 K. W. available at from 1½ to 2 pies a unit. To extract aluminium from the bauxite available would also require cheap power.

Sand and limestone are available for glass-making, the only imported materials necessary being soda and coal. Very little progress has been made with the exploitation of the excellent red and yellow ochres which occur in abundance near Lashkar. Some of the raw material is being exported, but it should be possible to start a paint industry in the State.

The following table summarises the State's mineral wealth :—

Mineral.	Uses.	Quantity Available.	Chief Locality.
Iron Ore (Was worked in past, not worked now).	Smelting	Several million tons ..	Gwalior.
Clays Being worked.	Pottery, fire-bricks, tiles, etc.	Several million tons ..	Gwalior.
Ochres Being worked.	Paints	Several million tons ..	Gwalior (raw material exported).
Mica Being worked.	Micanite, lubricants, etc.	Several thousand tons.	Gangapur (Mandsaur District).
Green-earth .. Being worked.	Pigment	Several hundred tons.	Basoda (Bhilsa Dt.).
Lime-kankar .. Being worked.	Whitewash, mortar ..	Several million tons ..	Anywhere in State.
Quartz and Quartzite. Being worked.	Glass-making, general building purposes.	Millions of tons ..	Gird, Shivpuri, Sardarpur, Mandsaur.
Limestones and Marble. Being worked.	Cement, whitewash, ornamental building.	Millions of tons ..	Gird, Shivpuri, Sheopur, Sardarpur, Mandsaur.
Gohara marble .. Being worked.	Ornamental building.	A million tons ..	Bijeypur Pargana.

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Mineral.	Uses.	Quantity Available.	Chief Locality.
Sand and sandstones. Being worked.	Glass-making, general building purposes.	Millions of tons ..	Gird, Shivpuri, Guna, Bhilsa, Morena, Sheopur, Sardarpur, Mandsaur.
Shales & Slates.. Being worked.	Cement, building ..	Millions of tons ..	Gird, Morena, Sheopur, Guna, Shivpuri, Sardarpur, Mandsaur.
Trap Being worked.	Building, road metal..	Millions of tons ..	Ujjain, Sheopur, Guna, Bhilsa, Gird, Sardarpur, Mandsaur.
Laterite Being worked.	Road metal	Millions of tons ..	Gird, Shivpuri, Guna, Bhilsa, Shajapur, Sheopur, Mandsaur, Sardarpur.
Bauxite	Aluminium, refractory and abrasive.	Few thousand tons in each of three districts.	Guna, Shivpuri, Bhilsa. (Deposits scattered).

There are small quantities of manganese and copper ores (copper pyrites, malachite, azurile), also lead ores. Of the non-metallic minerals there are moderate quantities of felspar, celadonite and zeolite and traces or small quantities of barytes, calcite, gypsum, flourite, apatite and steatite.

Precious and semi-precious minerals include commercially workable quantities of jasper, moderate quantities of agate, chalcedony, rock crystal, amethyst, opals and garnets. There are traces or small quantities of tourmaline, kyanite, diamond and corundum.

JAI VILAS PALACE, LASHKAR
Residence of H. H. the Maharaja.



FORESTS

State forests cover an area of 3,279 square miles, or a little more than one-ninth of the surface of the State. The greater part of them are in Sheopur, Shivpuri, Gird, Guna and Morena Districts. Though exploitation is not intensive, in 1937-38 the forests and their produce yielded to the State an income of Rs. 5,17,263, with an expenditure of Rs. 1,62,752.

Traditionally and historically Gwalior's forests held an important place. The forests around Ujjain, once known as the Mahabans, are reputed to have been the site where Sri Krishna sat at the feet of his Guru. The Shivpuri forests were the scene of Rukmani Haran, and the forests around Isagarh were the area where Nal and Damayanti roamed. The heroic deeds of Ala Udal were performed in the Narwar jungles which in more recent times were the haunt of the herds of elephants hunted by the Emperor Akbar. The forests of Sheopur were until recently regarded as the densest in Central India.

About 100 species of trees are to be found in the State forests, the commonest being salar, khair, kardhai, dhau, teak and chhola (other details of Gwalior trees will be found in the Physical Aspects Appendix).

Attempts at scientific forestry in the State date from 1904 when the first Conservator of Forests was appointed. Today the Forest Department is responsible not only for the administration of the forests and reafforestation, but also for mines and quarries, the maintenance of State boundaries forming the exterior boundary lines of forest reserves, supplies of grass and fuel to the State Army and Police and in time of famine, to the public. The Department also deals with all questions pertaining to the flora and fauna of the State.

Under the afforestation scheme the Department is attempting to reclaim the denuded land in the ravine area along the Chambal and Kuari. The plan formulated in 1924 was to afforest 200 acres of ravine land in Bhind district every year, completing 2,000 acres in ten years. Babul and shisham have mostly been planted. Recently there has been no extension of the work of this section owing to the limited funds available.

Timber Supplies

Of the important economic trees in the State forests teak covers 2,21,748 acres, the main ranges being in the Guna, Ujjain and Sardarpur districts. Teak forests are liable to occur in isolated blocks as in Ajnoi Khoh in Sheopur district and in the Pahar Mohar and Betwa blocks of Shivpuri district. Chachaura, Gyaraspur, Shamshabad and Amjhera are other ranges where teak is predominant.

Salar occupies a very large area. Aloeresin gum from which turpentine, rosin and gum can be made, is obtained from these trees.

Mahua is of considerable importance because not only are its flowers used for distilling country spirit, but they are also used as an article of food by the people of Bundelkhand in ordinary years as well as in famine periods. The fruit yields gillo oil which before the introduction of kerosene supplied cheap

lighting oil for the villagers. Mahua trees are found in all forests of the State, but the chief centres are the Karahal and Sheopur forests of Sheopur district, the Pichhore forests of Shivpuri district and the Chanderi forests of Guna district. Gwalior exports more than 7,000 maunds of flowers and seeds a year and imports nearly 3,000 maunds.

Sandal was formerly an important forest product in Malwa, and to-day it is found growing profusely in Shajapur, Ujjain and Mandsaur districts. Under a recent scheme the plantation of sandal trees has been introduced in the ranges of Gyaraspur, (Bhilsa), Sonkach (Ujjain), and Binagunj (Guna).

Anjan (Hardwickia binata) is famous for its lasting qualities and as logs or posts is used both in bridges and buildings. It covers an area of about 21,278 acres, pure forests of anjan being found in the Parlia, Piplia Pani and Chika Pati blocks of Sardarpur. Old buildings in Dhar, Amjhera and other old towns often contain posts and uprights of anjan wood which is still sound even after a hundred years or more.

Ougenia Dalbergoides is regarded as having special significance for Gwalior since it is believed to take its name from Ujjain, which in early works about India was often spelt Ougein. The tree, in scattered patches of stunted growth, is found throughout the Malwa forests.

Forest Produce

Of forest produce, medicinal herbs are important in the Ayurvedic system of medicine. As mentioned in the chapter on Medical Relief, medical officers in the State are being encouraged to use medicinal plants where suitable. Gwalior herbs have an established reputation outside the State and large quantities are exported from the Chanderi, Sheopur and Amjhera forests to the markets of Agra, Aligarh, Hathras and Delhi. Dashmool, a famous tonic for expectant mothers, is a speciality of the Chanderi forests. A set of Gwalior herbs was recently supplied to the Curator of the Indian Museum, Calcutta, for exhibition.

Lac which is produced from chhola, ber and ghont trees is now being intensively propagated in the Chanderi range, so that the old industry of shellac manufacturing can be revived on a modest scale. Where propagation is concentrated the work is done either departmentally or through contractors. About 200 maunds are collected annually. Lac can also be grown on Arhar, a field crop which is widely cultivated. The Department has issued a pamphlet in Hindi on lac propagation.

Large quantities of good quality grass grow in the State forests, and Sheopur, Shivpuri and Guna are the districts from which grass could be collected on a large scale for commercial purposes. In Gird district there are also extensive grass areas, but these are mainly earmarked for the use of the State Army. Depots equipped with pressing machinery are maintained by the Forest Department at Khari, Sheopur, Chorpura, Satanwara, Shivpuri and Guna.

Among the minor forest products gum is a very important commodity and yields a good revenue. The Naguli variety is much in demand as an edible gum, and if the produce could be graded it would fetch an excellent price in markets outside the State. About 14,000 maunds of gum are exported and about 2,000 maunds imported each year. Honey and wax are collected by contractors and yield a fair revenue.

The large quantities of kardhai and dhau trees are first-class charcoal yielders and the khairuas make quantities of kattha by indigenous methods from khair.

The leaves of the dhonkri and the fruit of the ghont are used to make tanning materials and small quantities are exported. Researches reveal that there is a considerable future for dhonkri leaves, the tannin extract of which is used by the tanners of Cawnpore. Other trees have barks rich in tannin but further investigation is required. The barks, leaves and flowers of a number of trees could be made to yield colouring materials. There are also materials available for oil manufacture, volatile oils, fibres, and paper pulp.

INDUSTRIES

Ever since his investiture His Highness the Maharaja Scindia has been keen to give an impetus to the development of industries in the State. The policy of the Durbar is to give private enterprise every possible encouragement, rather than to cripple normal development by creating exclusive monopolies for the State.

A Board for the Development of Economic Resources was established by Maharaja Madhav Rao in 1920. It functions under the Commerce Department, its scope including agriculture and agricultural engineering, veterinary service, colonisation, irrigation and technical education as well as commerce and industry, including mines, forests, power schemes, live-stock, banks, communications and statistics.

A variety of industries have been sponsored by the State, and though not all of them have succeeded, the survivors show a considerable variety of industrial activity and a healthy progress in spite of the years of depression.

State Owned Concerns

GWALIOR LEATHER FACTORY, started in 1912, has run very successfully. During the boom period (1912-20) large profits were made owing to the enormous demand for its manufactures by the Army Department of the Government of India. It thus was able to build up its own capital of Rs. 4,82,000. The effect of the depression was felt by this factory, and the dumping of cheap imitation leather and rubber shoes of foreign manufacture has greatly hampered the production of civilian footwear. Warrants of Appointment have been granted to the factory by the Duke of Windsor (when Prince of Wales), and Lord Reading. The Gwalior Army is equipped with saddlery etc. made here.

GWALIOR POTTERIES LTD. is solely owned by the State and has factories at Gwalior and Delhi, with a capital of about Rs.10,00,000. These factories are fully equipped for the manufacture of crockery, tiles, flooring, sanitary fittings, drain pipes, toys, jars, firebricks and insulators. The clay fields owned by the company yield a high quality kaolin clay which is washed by machinery at the site. The quality of the goods manufactured is superior and durable. Owing to keen competition from cheap Japanese goods, however, the products of these factories can only be sold at a very small margin of profit.

GWALIOR ENGINEERING WORKS, as at present constituted, are mainly intended to be the locomotive, carriage and wagon shops of the Gwalior Light Railway. The Works are well equipped with up-to-date machinery and the assembling and woodwork are carried out on a highly skilled basis. Other work specially undertaken includes iron and brass castings and metal work generally, motor car engines, transmission gear and bodywork, steam rollers, furniture, nuts, bolts and rivets, carts, tongas and ambulances. For railway work trusses, points, crossings and rail keys are manufactured. In addition, the silver section turns out silver ware which compares very favour-

ably with the best British makes. A mint for the coinage of copper pice is also maintained in the Works, but under the direct supervision of the Finance Department.

GWALIOR ELECTRIC SUPPLY CO., has electric power houses at Gwalior, Ujjain and Shivpuri. Details are given under "Electricity Supplies" in the chapter on Building the New Gwalior.

GWALIOR TANNERY, which specialised in bark tanning and had gained a footing in the leather markets of India, has recently sustained heavy losses and operations have been suspended.

ALIJAH DURBAR PRESS is equipped with up-to-date printing machinery worked by electric power. Replacements and improvements costing about Rs.2,00,000 have been made in recent years. Besides printing, lithography, book binding, die stamping and rubber stamp making, the Press also deals in stationery and paper. The addition of Linotype machines has contributed to an efficient and quick printing service.

Jail Industries

In order to train convicts in crafts which they can carry on after their release, the State jails provide training in a large number of small industries. The industries at the Central Jail, Lashkar are: Persian carpet weaving, coconut fibre matting, litho and type printing, khadi, dusuti, chadar, sheeting, silk, calico, turkish bath and honeycomb towelling, shirting, bandage cloth, hosiery and saris, tailoring, durees, newars and farashs, furniture and carriage building, cane furniture, chicks and purdahs, woollen blankets, aniline dyes, painting and polishing carriage bodies, flour milling, iron and brass foundry, vegetable garden and farm, poultry, laundry, pottery and hand spinning of cotton and wool. The District Jail at Ujjain carries on the same industries on a modest scale.

Private Enterprise

Industrial ventures under private control are many and prosperous. The Gwalior Cement Co., Ltd., with a factory at Banmore manufactures the "Sun Brand" portland cement of which 60,000 tons were produced in 1937-38. The cement manufactured by the wet process and calcination takes place in a rotary kiln 175 ft. long and 7½ feet in diameter.

Textiles provide one of the most and flourishing industries in the State. There are seven cotton mills at Ujjain and Gwalior. Capital invested amounts to Rs.146½ lakhs. Indeed the processing of cotton heralded the industrial era in Gwalior, the first cotton press having been established at Ujjain in 1880. Today about four lakhs of bales of cotton are grown in the State. Yarn and piece-goods worth about Rs.1½ crores are produced in mills in the State every year. This compares with Rs.11,00,000 worth produced in 1911. Coarse cloth, which is in great demand in rural areas, is produced at Ujjain, as well as higher qualities. Mills which have been constructed during the past decade have been designed to produce the finer cloth for which there

is a growing demand in the Indian market. These mills provide employment for 10,640 State subjects, the Jayajirao Cotton Mills at Gwalior employing as many as 5,332 persons. There are also 125 cotton gins and 23 cotton presses in the State.

Other enterprises include a tobacco factory at Gwalior, producing high grade cigarettes from tobacco grown at Shivpuri. There are also three hosiery factories, six iron, brass and metal foundries, four distilleries, three roller flour mills, and 173 small power driven flour mills; there are two ice factories, 17 aerated water factories, 23 oil mills, 13 soap factories, 21 printing presses, a sugar factory and six dall factories. Altogether there were 455 factories and industrial concerns in the State in 1937-38.

The sugar factory which will have a capital of Rs.15-20 lakhs has been sanctioned and an agreement entered into with the promoters binding them to sell sugar one rupee cheaper than the rates charged for outside sugar of similar quality. The State has given a guarantee that in future a uniform customs duty of Rs.2 a maund will be levied on all sugar coming into the State. The mill is to be operated at Dabra which is in the Harsi dam irrigation area.

New companies recently registered in the State include the Imperial Match Co. India Ltd., the Jayajirao Oil Mills Ltd., the Scindia Oil Industries, a flour mill at Basoda, a bone crushing mill at Bhilsa, and a dyeing factory at Ujjain. Licences have been granted to private companies for the electrification of Bhind, Bhilsa, Guna, Morena, Barnagar and Mandsaur. In order to assist industrial progress the Durbar has exempted from customs duty all imported material which may be used in the initial construction of factories such as flour mills, oil mills, and electric supply concerns.

Proposals for new enterprises include a glass factory, a motor car factory, and the development of the paper, straw-board, varnish, paints, matches and catechu industries. Working plans are being prepared and avenues of income opened through subsidiary forest industries such as lac, sylviculture, bee-keeping and fibre cultivation. The Durbar has set aside Rs.50,000 for granting loans to small scale industries.

Indigenous Industries

A large number of small industries, of which several have been established many centuries, exist in the State's districts. Perhaps the most historic is the weaving of fine fabrics such as muslin at Chanderi. Much of the gold work on cotton saris is of great beauty. Great efforts are being made to stimulate this industry which is patronised by the Ruler's family, and the products of the Chanderi looms used for awards like Poshak which are made in Durbar. A textile institute is in operation at Chanderi. In the same area efforts are also being made to revive the old industry of shellac making from the lac which is being intensively propagated in the forest ranges of the area.

Many small industries centre around Ujjain where there are sandalwood oil distilleries. Thymol is also manufactured there from Ajwain. The comb makers of Ujjain are famous, an outstanding product being their sandalwood combs which automatically oil the hair. Rosewater, agarbattis (scented sticks) and dhup are also made there, as well as saris which find a market in Bombay and Poona.

Khachraud in Malwa and Sheopur and Sabalgarh are noted for their lacquer work which includes beautifully coloured bedstead legs, and in the latter two places such articles as chessmen and scent containers. Khachraud also makes kajal, the medicated soot used for the eyes. Unrefined wool at Mandsaur is made into blankets and carpets, and there are also makers of bangles from coconut shell and Ivory. The Tambat Nib Factory, an old established concern, turns out pen nibs of high quality and is patronised by the Gwalior Government and other administrations.

Nor must one forget the delicate stone tracery which the highly skilled craftsmen working on excellent local material, have brought to such a fine art in the State.

COMMERCE

In the year 1936-37 Gwalior exported merchandise to the value of Rs.3,29,75,653 and imported goods worth Rs.2,33,93,071, proof of the healthy state of commerce and industry in the State. The internal trade for which no figures are available is of course many times greater than the figures just quoted. Much of this healthy development is due to the unremitting efforts of the Commerce Department of the Durbar to encourage trade, a feature of State building which is being energetically fostered by His Highness. It also has to be remembered that geographically Ujjain is in an excellent position as a clearing house for Central Indian business because it lies at the junction of roads leading to Indore, Narsingarh, Biora, Khilchipur, Maksi and Sanwer.

One of the most important activities of the Commerce Department is the Economic Development Section which deals with statistics, inspectors of boilers and factories, commerce inspectors, the Industrial Museum, mandis, hats and fairs, and ferries. Its sphere of activities includes :—

The encouragement of private enterprise and advice to people to start industries. To give permission to intending capitalists and businessmen to start factories within State territory. It acquires land for intending promoters and thereafter deals with matters concerning them.

The fostering of nascent industries by grant of guarantees, subsidies and loans.

The carrying on of general research work in arts and manufactures, and investigation of the productive resources of the State.

The revival of old and dying handicrafts and home industries and to graft modern ideas and systems of work on to them.

The supervision and regulation of ginning and pressing rates in factories established in the State and to deal with matters pertaining to them.

The establishment of mandis (regulated markets) in important State trade centres to develop and centralise the trade of the State.

The establishment of bonded warehouses, to watch the development of those already established, and to deal with all matters pertaining to them.

The establishment of Freeganjs (duty-free zones) for the development and centralisation of trade, and to watch their progress.

The supervision of the accounts and working of the Chambers of Commerce and trade associations in the State and to help them in various ways.

The collection and supply of all information connected with commerce and industries for the public in and outside the State and also the Government of India, foreign administrations and the League of Nations, and to advise the Durbar as regards entering into conventions with them.

The supervision of fairs and exhibitions in the State, and to advise the Durbar and the public about taking part in exhibitions held outside the State, and to make arrangements therefor.

Advising Municipalities on the imposition of taxes with special regard to the fact that no industries or trade in the State are to be adversely affected by any such tax.

The handling of all matters relating to the manipulation of the Customs Tariff *i.e.* enhancement or reduction of Customs duties.

The policy of the Department is to attract new industries by offering the necessary advice and by supplying information as well as by giving certain concessions and facilities to promoters of mills, ginning and pressing factories and other industrial concerns. That this policy is effective is shown by the results achieved in 1937-38, a year when trade was still depressed in Central India. During that period permission was granted for the erection of a flour mill at Basoda, a cotton press at Rajgarh, a cotton ginning factory at Suvasra, a bone crushing mill at Bhilsa, the addition of four oil expellers at a cotton press at Barnagar, the erection of a dyeing factory at Ujjain; in addition to two small flour and oil mills. The Department was also responsible in the same year for granting the licences for the electrification of Bhind, Bhilsa, Guna, Morena, Barnagar and Mandsaur. Applications for the electrification of Khachraud and Sonkach were under consideration. In granting such licences, a share of 6¼ per cent of the profits of the concerns is stipulated for the State. During 1937-38 23 new factories and industrial concerns came into being in the State, making a total of 455.

Statistics

Accurate and full statistics are of prime importance in trade and commerce and the Statistics Section of the Commerce Department is sparing no effort to improve the services which it renders to the Durbar and the commercial community at large. Fourteen different types of publications and periodical returns are issued: annual agricultural and commercial statistics, including manufactures and trade; annual rail-borne trade statistics; annual general statistics of the State; annual statement of working conditions of factories and industrial concerns worked by mechanical power; annual statement of mineral production; annual statement of newspapers published in the State; annual synopsis of principal events of the Commerce Department; annual statement of cotton woven goods held in the cotton spinning and weaving mills in the State; annual statement of cotton spinning and weaving mills in the State; annual statement of cotton stock held by the trade in the State; annual statment of salt and saltpetre production; quarterly statement of books printed on the presses in the State; monthly statement of cotton consumed in the cotton spinning and weaving mills in the State; and monthly statistics of cotton goods produced in the spinning and weaving mills in the State. Publicity for these returns is afforded through the "Jayaji Pratap", the State newspaper.

Industrial Museum

The Gwalior Industrial Museum at Lashkar was started in 1917 to advertise the arts and crafts of the State and to popularise the industrial products of Gwalior. In it are displayed specimens of the arts and crafts of the State and the products of State-owned and private concerns. An attractive stall is maintained by the Museum on Gwalior railway station (G.I.P.) to give an idea of the State's manufactures to passing travellers.

As cotton is an important commodity in the State a Cotton Contract Registration Office was established in 1936 to remove the difficulty under former laws of ascertaining the genuineness or otherwise of forward contracts—whether the parties at the time of making them intended to give and receive delivery of goods or only to pay and receive differences of price in settlement. The Office registers contracts for forward deliveries of ginned and unginned cotton and cotton seeds. There is also the Sowda Forward Delivery Association, a voluntary association of traders and brokers in the forward market, which regulates relations between its own members.

The Department is also energetic in maintaining the reputation of Malwa cotton in outside markets by punishing such malpractices as mixing cut seeds in cotton.

Mandis

Mandis are regulated markets which have played an important part in the economic development of the State. Agriculturists bring their produce to the mandi where it is sold by open auction, the sellers thus obtaining the most competitive prices. The management of these mandis is vested in local elected bodies, the mandi committees, each having eight members and a chairman, and including a zamindari member. These committees deal with all local trade matters and act as arbitrators in cases of dispute. In places where there is no municipality the mandi committee functions also as a town committee. These committees are expected to be self-supporting and are authorised to collect licence fees from Adatiyas (commission agents), Dalals (brokers) etc., working in the mandis. They also collect Dharmada from factory-owners and on all pacca adat transactions put through the mandis. This amount is spent on charity and other works of public utility and beneficence. During 1937-38 two new mandis were opened at Chanderi and Bhander, making 16 mandis in Gwalior and 20 in Malwa. The total receipts and previous balance of the mandi committees during the year were Rs.86,062, expenditure Rs.47,308. But this was a bad year owing to heavy falls in the prices of cotton, wheat and other agricultural produce.

During 1937-38 revised bye-laws for the mandis were published, the effect being to provide a uniform basis for market transactions and thus facilitate trade by removing local differences and intricacies in the system of charging, selling and purchasing, commission, brokerage, Dharmada and weighing charges in the business transactions put through the mandis.

There are mandis at Lashkar, Morar, Gwalior, Dabra, Bhind, Bhander, Morena, Sabalgarh, Sheopur, Shivpuri, Guna, Pachhar, Mungaoli, Chanderi, Basoda, Bhilsa, Ujjain, Khachraud, Barnagar, Nagda, Sonkach, Shajapur, Shujalpur, Agar, Susner, Nalkheda, Akodia, Kalapipal, Mandsaur, Jawad, Baghana, Suvasra, Rajgarh, Manawar, Amjhera, and Bagh.

Freeganj

A most interesting development in the State's trade policy has been the establishment of the Madhonagar Freeganj at Ujjain. The idea originated with His late Highness who conceived the idea of establishing duty-free zones at different centres in the State in order to facilitate the movement of trade. The idea was put into practice at Ujjain by the Council of Regency in 1928, and so successful has the scheme been that Madhonagar, as this freeganj was named, has become a unique modern colony on the outskirts of the old city. It was set up under the following conditions :

No customs duty to be imposed on goods imported into Madhonagar from, or exported to, territories other than Gwalior State.

The produce of Gwalior State when exported to the freeganj from any mandi or town of the State to pay customs duty in accordance with the export tariff; such products on re-export from the freeganj to "foreign" territories not to be liable to payment of any other duty;

Goods coming from the freeganj into Durbar territory to pay import duty in accordance with the scale provided for the mandi at Ujjain.

A police station and a warehouse were provided and banking facilities arranged. Also a loan committee with a sum of Rs. 5,00,000 to make advances to traders on the security of goods on the warehouse system.

The result is a well laid out colony with fine roads and trees. The land is divided into blocks of which 1060 had been allotted by the end of 1937-38. On these are built excellent shops and houses which are owned by settlers from Bombay, Indore, Poona, Rutlam, Bhopal, Dewas, Aligarh, Muttra and other places. Modern conveniences such as water, electric light, telephones and post office have been provided. The residents of Madhonagar are exempt from Ujjain municipal taxes, but have a committee of official and non-official members to deal with all matters relating to the development of the freeganj and the allotment of plots.

During 1937-38 imports into the freeganj were Rs. 47,87,319 and exports Rs. 38,72,932, being a fall of about 11 per cent and 20 per cent respectively on the previous year. It must be remembered however that these were years of extremely low prices. Nine years previously the value of imports was over a crore of rupees. The trade of the freeganj chiefly consists of sugar, tobacco, cloth, matches, biri, coconuts, kerosene oil, rice and hardware.

A goods siding was opened in the freeganj for the convenience of merchants in 1933. In 1937-38 inward traffic was 3,24,984 maunds and outward traffic 47,570 maunds.

Hats and Fairs

The Commerce Department has always helped local and rural trade by encouraging the people to hold periodical hats and melas. Hats usually serve as marts for the rural population, and melas draw purchasers from far and near. To encourage holding hats and fairs concessions are made in the rates of customs duties. During 1937-38 there were 65 hats and 32 melas. A mela is held in connection with annual Gwalior Fair and Agricultural Exhibition, and recently improvements have been made on the mela ground, including the extension of stores and sheds for shops, extra sanitation and the provision of a radio. Concession rates are secured on all the Indian railways for consignments of goods booked for the exhibition.

Other features of this exhibition are the propaganda and demonstrations by the Agricultural Department, and the cattle section where good water and fodder facilities are provided for traders. In case of bad weather which imposes hardship on the villagers, coal, fuel and blankets are when necessary distributed free.

The total of merchandise and wares sold at the 1937 mela was Rs.5,18,695.

Chambers of Commerce

Gwalior's first Chamber of Commerce was established at Lashkar in 1906 after His late Highness had pointed out to the commercial community the advantages of such a Chamber, a matter which the Maharaja had investigated during his visit to England in 1902.

The Lashkar Chamber has since its inception taken an active interest in all matters affecting commercial interests in the State and it can claim a good deal of solid work to its credit. It took a prominent part in the establishment of mandi committees in the State, in framing hundi regulations, and other important rules governing transactions in grain, cloth, etc.

Recently it was included in the list of Chambers and Commerce and Trade Associations recognised by the Government of India. This inclusion brings it into contact with the important publications made by the Government of India for circulation among recognised commercial bodies. It is also invited from time to time to express its opinion on matters of commercial and industrial importance. It is also a member of the Federation of Chambers of Commerce and Industry. Its work outside the State has recently included sending a representative to the Ghee Conference in Simla, and advising Marketing Officers of certain Provincial Governments about gur, coconut and fruit production and trade in the State.

The Chamber also considers and when necessary supports representations made by mandi committees to various departments of Government. It has been very successful in securing from the G. I. P. Railway various improvements and concessions which ease commerce. It has representatives on a large number of bodies in the State, including the former Majlis-i-Am and Majlis-i-Kanoon, the Improvement Trust, the Gwalior Municipal Committee,

the Board Sahukaran, the Gwalior Cotton Committee, the Tariff Board and the Lashkar Municipal Committee. The Chamber is increasing in popularity and influence.

A Chamber of Commerce was also established at Ujjain, and though efforts are being made to organise it on as sound a basis as the sister association at Gwalior, it cannot be said to be making very rapid progress.

Tariff Board

Before 1905 there were internal customs posts in the State and duties were levied. In that year a Customs Commission was established and the policy of levying customs duties was revised. A Tariff Commission appointed in 1928 was given as its terms of reference that the scale of duties on imports and exports should be so regulated that it would tend to develop the resources of the State both as regards production and industries ; to enable the people to get the daily necessities of life at a comparatively cheap rate ; to provide measures whereby goods made in the State might find an easy way into foreign markets, and to centralise trade in the State mandis. As a result of the recommendations of this Commission a new tariff schedule was brought into force in 1930.

In framing the revised schedule the Commission felt that taxation should be such as would help in improving the economic condition of the people and in fostering State industries. As a result certain material changes were made which resulted in a fall of several lakhs of rupees in the Customs receipts. The Council of Regency were willing to sustain this loss in view of the advantage which was expected to accrue from the general prosperity of the State by the development of commercial and industrial undertakings. The new schedule meant that duty was retained on 59 articles as against 110 in the previous schedule. An increase was made in the export duty on foodstuffs in order that an undue burden of taxation might not fall upon the cultivators and a system was devised whereby high export duties are automatically levied whenever the prices of food grains exceed the prescribed limit.

A permanent Tariff Board was established in 1930 as an advisory body to the Commerce Department. It sees that due protection is given to industries in the State. The Durbar adopted recommendations made by this body to protect the sugar and shoe industries by levying duty on sugar and canvas and rubber shoes coming from outside the State.

Total income from duties on imports and exports during 1937-38 was Rs. 24,36,461, being Rs. 12,94,734 from imports and Rs. 11,41,727 from exports, as against a total of Rs. 33,85,968 in the previous year.

DEVELOPING GWALIOR'S WEALTH

GIVEN the potentialities such as Gwalior possesses, there are a number of ways in which the wealth of a State can be increased. Some of the most important of them are : Irrigation which allows more land to be brought under the plough, while other land already productive, can be made to yield more intensively by the provision of water ; the development of communications such as roads, railways and airways which allow potential wealth to be realised by providing routes to consumers. There is also the colonisation and reclamation of land hitherto undeveloped ; and by co-operation and rural reconstruction the standard of living, and hence the wealth of the community, can be increased.

IRRIGATION

The total area irrigated in Gwalior State in 1937-38 was 2,08,021 bighas, as compared with 1,71,313 bighas the previous year. The revenue was assessed at a total of Rs. 3,64,125, and including book credits, Rs. 2,90,972 was realised. A remission of Rs. 1,00,626 was made and as water was supplied free in the Harsi and Aoda dam areas, assessments of Rs. 71,744 and Rs. 4,709 respectively were not collected.

The area irrigated and the revenue receipts show a steady increase, and in the near future both the Aoda and Harsi areas will have assessments levied. Apart from these two large schemes, the State possesses about 700 minor tanks and 141 major works, along with another two big schemes. The irrigation budget for 1937-38 was Rs. 6,18,225, maintenance costing Rs. 1,84,978.

A considerable demand for irrigation exists, particularly in the northern section of the State, rainfall being precarious and the soil porous. The Irrigation Department was organised in 1905 and so rapid has progress been that large areas are now protected from the famine conditions which usually ravage Central India every third or fourth year. It is intended that, with the completion of special works, Gwalior should possess an extensive and organised system of irrigation comparable with the best irrigated tracts in the country.

With the exception of zamindari bundhias there were only about 25 irrigation works which could be called tanks in the State before 1895. These included the tanks made by Raja Man Singh : Jeora tank, Gird ; Dinara tank,

Karera; Dhakoni tank, Guna; Lamgaori tank, Mandsaur; Khodana tank, Mandsaur; and Kashipur tank, Jaura. There were also palace tanks constructed by Sir Michael Filose and Rai Bahadur Munshi Balmukand. They were: Birpur tank, Raipur tank, Kheria tank, Choura tank, Nayagaon tank, Barai tank, Ama-Ami tank, all in Gird; Kuwarpur tank and Bamore tank in Jaura, and Mowa tank in Ambah. None of these is large enough to hold more than 300 million cubic feet of water.

A number of important works were put in hand during the nineties including constructions at Tonga, Dhobni, and Sabalgarh; the Bahadarpur dam, and the Tekanpur tank. Altogether about 50 tanks were constructed, most of which were breached in 1902. They have since been repaired and brought back into use. Between 1905 and 1914 the most notable undertakings were the Sank-Asan scheme and the Rampur projects, estimated to cost Rs. 40 and Rs. 6 lakhs respectively. By 1914 the number of tanks had grown to about 750 and the Amahi, Jamapura, Guraria and other schemes were in progress.

Main Schemes

The most important system of irrigation in the State at present is the Bhind canal in the Sank-Asan scheme. This canal which was constructed about 1914, has been very successful in serving Bhind district where there are a considerable number of colonists who have come mainly from the Punjab. This canal is fed by the Pagara and Tigra reservoirs, the latter of which also supplies drinking water to Lashkar, Gwalior and Morar.

The Sank-Asan scheme in its original form cost about Rs. 5,00,000 and consists of the Tigra reservoir, the Pagara reservoir, the Kotwal weir, the Pillao weir, and a connecting channel two miles long above the Kotwal and Pillao weirs so that water from the Pagara reservoir may pass to Pillao Lake and thence to the Bhind canal. The Bhind canal is 48 miles long from Pillao to beyond Bhind and has a system of distributaries. It is capable of a maximum discharge of 500 cusecs. Recently a sum of Rs. 5,30,000 was sanctioned for remodelling the canal and the work was nearing completion in 1938.

The Tigra reservoir is formed by a masonry dam, nearly a mile long, built across the Sank river near the village of Tigra about 11 miles south-west of Lashkar. The maximum height of the dam is 80 feet and the width of the base 65 ft., the top being 10 ft. wide. The catchment area is 160 square miles and the capacity 4,600 million cubic feet. The water surface with the reservoir full is 7½ square miles. Owing to the floods of 1917 the reservoir was breached to a length of 1,300 ft., causing great havoc in the surrounding areas. The breached portion has been raised and repaired and a waste reservoir provided with automatic shutters.

The Pagara reservoir is formed by a composite masonry and earthen dam across the Asan River eight miles south of Jaura-Alapur. The capacity is 4,571 million cubic feet.

The Kotwal weir of masonry is 1,000 ft. long and built to a level of 30 ft. above the nullah bed. The Pillao weir is also a masonry dam 1,000 ft. long, about 29 ft. high on the left flank and nine feet high on the right.

Parbati Scheme

The Parbati scheme includes the biggest reservoir in the State—that impounded by Harsi dam, about 58 miles from Gwalior. The dam was originally designed as a hydro-electric and irrigation scheme in the time of His late Highness. After many vicissitudes the hydro-electric part of it was dropped and the reservoir completed in 1936 at an estimated cost of about a crore of rupees. With the Kaketo reservoir, situated 25 miles up-stream, this scheme has a combined capacity of 10,000 million cubic feet and will irrigate land around Bhitawar and Dabra as well as lands situated to the south of Tekanpur tank.

About 1,50,000 bighas are expected to be included in the irrigation area where the principal crops are wheat and sugar-cane. Considerable progress is being made with the introduction of irrigation to cultivators and in 1937-38 43,436 bighas were irrigated, as against 28,623 bighas in the previous year. Water cess will be levied in 1940.

The dam impounds the Parbati River at the point where it leaves the hills, and has a storage capacity of 7,234 million cubic feet, the catchment area being 726 square miles. Owing to the hilly nature of the ground it has been possible to build the dam in two sections, with another gap in the hills to the S. S. W. serving as a waste weir. By means of training walls added to the natural direction of a nullah, it has been possible to lead the overflow back to the Parbati's course in fairly easy fashion.

This arrangement has been found ample to cope with flood water. The waste weir, which is 1,600 feet long, is designed for a depth of eight feet of water going over the top. So far the greatest discharge has been three feet.

The main dam, which is rubble faced, has a length of 6,580 feet (about a mile and a quarter), and the cost of the two dams and the waste weir came to nearly Rs. 45½ lakhs. Though by no means among the first group of India's big dams, Harsi supplies 43 miles of main canal, and it is expected that when the scheme is completed well over 100 miles of distributary canals will be fed in this way.

The main canal which takes off near the eastern end of the dam, receives a maximum discharge from the sluice gates of 1,000 cusecs, the water depth at the sill of the sluice being 42 feet. During the rabi season of 1939, about 200 cusecs were sufficient to feed the main canal.

The sluice gates, of which there are three sets, are arranged in pairs, thus permitting easy repairs and also reducing the strain on any particular gate. They are hand operated.

In creating this huge reservoir it was necessary to submerge the sites of four villages, vestiges of which—in the shape of trees—can be seen when

the water in the reservoir falls during the dry weather. The people have been settled further down the valley which is now getting the benefit of a perennial water supply. The channels for the Parbati Project are still under construction and all told the project is estimated to cost Rs. 1,25,00,000.

Aoda Reservoir

Another big work recently completed is the Aoda reservoir near Sheopur. The reservoir contains 1,642 million cubic feet and special steps are being taken to develop irrigation in the area served. Apart from irrigation, the Aoda reservoir has conferred immense benefit on the town of Sheopur since percolation from the reservoir ensures an abundant supply of water in the river at Sheopur. Formerly the supply was very meagre and inhabitants experienced great hardship on this account during the hot weather.

Irrigation began at Aoda in 1934 and in 1937-38 2,682 bighas were irrigated as against 1,610 bighas in the previous year. Cess was to be levied in 1938-39. Previously the tract which this dam now serves suffered severely from lack of water, whole villages having to migrate during the hot weather. The scheme is estimated to cost about Rs. 22,00,000, will benefit 50 villages, and irrigate eventually 45,000 bighas.

The Baisley dam is capable of irrigating about 32,000 bighas in 32 villages and of paying a return of 6 per cent. on the capital outlay of Rs. 9,00,000. The Rampur reservoir near Guna will hold 1,200 million cubic feet of water, and irrigate 16,000 bighas. Its cost was about Rs.6,00,000.

During the life-time of Maharaja Madhav Rao about Rs. 2,50,00,000 was spent on irrigation.

Recent special relief measures which have been sanctioned include Rs. 24,000 advanced for the repair of old wells, and a lakh of rupees for the construction of dams at Tanda and Bagh. In the same manner Rs. 1,29,500 was advanced to the districts of Bhind, Sheopur, Guna, Ujjain and Mandsaur as loans without interest for repairs to old, and construction of new wells, purchase of seed, bullocks, fertilisers, etc.

The Agricultural Department has special development schemes in hand for both Aoda and Harsi areas, details of which are given in the chapter on Agriculture.

COMMUNICATIONS

The economic development of a country depends to a very great extent on the ease, security and low cost at which goods and people can be moved about. Gwalior is fortunate in possessing an extensive system of railways, 2,244 miles of excellent roads, a fine system of motor services, and air connections with England and Australia, Bombay and Delhi.

Railways

The State owns over 500 miles of railways either worked directly by the Durbar or under the management of the G. I. P. and the B. B. & C. I. Railways. Early in India's railway history the State materially assisted the Government of India by giving a perpetual loan of one and a half crores of rupees for the construction of the Scindia State Railway from Gwalior to Agra, and the Indore-Neemuch Railway, which nowadays are managed and controlled by the G. I. P. and B. B. & C. I. Railways respectively. The Bina-Guna Baran line was constructed at the cost of the Gwalior Durbar and handed over for management to the G. I. P. Railway. Similarly the Bhopal-Ujjain and the Ujjain-Nagda portions of this railway are owned by Gwalior State.

During the past 30 years a number of projects for opening up the vast areas in the southern division of the State have been discussed, but owing to the extremely high cost of construction they have been shelved in most cases. In the case of the Ujjain-Agar Light Railway however, the Council of Regency sanctioned Rs. 20 lakhs for its construction and the line was completed in 1931. Upto June 1938 total capital outlay on this Branch was Rs. 23 lakhs. The railway which covers 41 miles has a two feet gauge, and the carriages and wagons for it were built at the Gwalior Engineering Works. The country through which the line runs is very undulating and a major bridge at Pat-Parsi had to be constructed at considerable cost. The traffic consists chiefly of cotton and grain. This section forms part of the Gwalior Light Railways.

The traffic potentialities of the northern part of the State were realised by the Durbar more than 30 years ago, and today the Light Railways, the capital outlay on which is Rs. 97 lakhs, run in three directions with a length of 253 miles. These lines are under the Durbar's exclusive control and have shown excellent financial results as well as providing employment for hundreds of people. Two projects, the Soni-Ambah and the Bhind-Daboh lines intended to augment the earnings of the Light Railways at a cost of Rs. 31 lakhs are awaiting execution.

The Gwalior Light Railways in the northern section of the State comprise the Gwalior-Bhind, Gwalior-Shivpuri, and Gwalior-Sheopur lines. The Gwalior-Bhind line traverses country which is fertile and possesses a population of 130 to 250 people to the square mile. This line has been a paying concern since its inception and at no time has the return on capital fallen below 4 per cent. In the year 1923-24 the return exceeded 10 per cent. But for this section, the gross earnings of the railway would be abnormally low.

The Gwalior-Shivpuri section, which is next in importance, traverses somewhat poor country, where the spurs of the Vindhya mountains make cultivation difficult if not impossible. Villages are few and far between. Traffic in grass and stone makes up for deficiences in other directions and the return on capital has averaged 2½ per cent. In the year 1923-24 the return was over 4 per cent.

On the Gwalior-Sheopur line the Gwalior-Sabalgarh section was originally opened to find employment for poverty stricken people of the locality in famine years. Subsequently the line was extended to Sheopur. Except for the Gwalior-Sabalgarh section the country traversed is practically devoid of human habitation. Scarcity of water and the difficulty of obtaining sufficiently good soil for cultivation have driven away human beings. The only station doing any business worth the name is Sheopur. The return on capital on this section has hardly exceeded 1½ per cent.

Before 1913 the G. I. P. Railway worked the Gwalior Light Railways, but in that year their administration was taken over by the Durbar. From then to the end of the Great War the gross earnings of the railways as a whole fluctuated between Rs. 5¼ and 6¾ lakhs with a return on capital of between 2½ per cent. and 4¾ per cent. Lines which have been surveyed and projected are between Bhind and Daboh, Barnagar-Dhar-Sardarpur; Morena-Ambah; Soni-Ambah and Sanichari-Ambah. It is stated that the Bhind-Daboh railway would be a paying proposition with the Sanichari-Ambah railway next in order of importance.

Gross earnings for the Gwalior Light Railways proper (northern lines) in 1937-38 were Rs. 7,72,100, out of which goods traffic accounted for Rs. 4,59,711. Expenditure was Rs. 5,50,171, net earnings being Rs. 2,21,929 showing a return of 2.23 per cent. on capital outlay. These returns show a decrease in profit compared with the previous year owing to the fact that in 1937-38 there was considerably less grain traffic from Bhind and Shivpuri. In the previous year this traffic had been abnormally heavy. The results are satisfactory as compared with the operation of other narrow gauge railways in India, and the position is improving after the depression years.

Roads

The State has 2,244 miles of roads traversing the country, and the mileage is being added to year by year. During 1937-38 32 miles of new roads were built at a cost of Rs. 2,19,376. About Rs. 7¼ lakhs is spent annually on maintenance, an average cost of Rs. 325 a mile. During the same year Rs. 1,02,316 was spent on the construction of bridges and culverts which included an important bridge over the Kali Sind river at Pat-Parsi which will remove the inconvenience formerly experienced by the public; and also an over-bridge at Ujjain. During five years Rs. 5,13,000 has been spent on new roads.

The State is traversed for 244 miles by the Agra-Bombay road which enters Scindia territory after crossing the Chambal river near Dholpur, 36

miles from Agra. Besides a dak bungalow at Dholpur there is an inspection bungalow at Bhanpur (39 miles), and at Nurabad (59 miles). Lashkar City (74 miles) is reached after passing the Irwin Power House and Water Works. Further along the road dak bungalows are situated at Mohna (109 miles), Chorpura (120 miles), and Satanwara (134 miles).

Shivpuri hill station (143-45 miles) is a fine sight-seeing place and has good hotel accommodation. Between Shivpuri and Indore dak or inspection bungalows are situated at Kolaras (159 miles), Badarwas (176 miles), Guna (204 miles), Ruthiai (218 miles), Khatkia (233 miles), Binaganj (244 miles), Ghora Pachhar (123 miles from Indore), Biora (122 miles), Pachore (104 miles), Udankheri (94 miles), Sarangpur (74 miles), Shajapur (59 miles), Maksi (44 miles), Dewas City (21 miles), Dakchiya (8 miles), Indore City (dak bungalow and hotels).

The construction of this road was undertaken by the Government of India in 1840. At that period the need of a military road was seriously felt and the Gwalior Government contributed several lakhs of rupees. Twenty-six years later the road was handed over to Gwalior State, and today it can be said that of the very assorted collection of surfaces which the motorist can meet between the coast and Agra, the Gwalior stretch is among the best.

During the past 60 years enormous strides have been made in road building in the State. The establishment of Shivpuri as the State hill station caused a good deal of road construction and this town is now connected with Jhansi and Lucknow on the east, and on the west with Jaipur, though the road deteriorates beyond the Gwalior boundary. In a part of the country which is not particularly well served with roads, Gwalior has made determined efforts to provide outlets for its trade and has even gone to the length of arranging with neighbouring States to build linking roads through their territory—an enterprising example which has by no means been universally followed.

Jagir holders have been encouraged to build roads through their estates by remitting the road cess. The result of all this activity has been to make practically all parts of the State fairly easily accessible by car and bus.

Circuit houses, dak and inspection bungalows and rest houses are provided on all roads for travellers both high and low, and various conveniences are provided to make their journey comfortable.

Important roads connecting Gwalior State with places outside are the Mhow-Nimach road (163 miles), Nimach-Nasirabad road, Gwalior-Etawah road (59 miles) and the Gwalior-Jhansi road (33 miles). The "Motorists Road Guide" published by the Gwalior P. W. D. gives details of the roads inside the State and much other useful information.

Road Transport

Gwalior has a remarkable series of bus services which reach practically every corner of the State and which have been described as "on a par with any transport organisation overseas." These services are run by the Gwalior

and Northern India Transport Co. Ltd., which since 1925 has been financed and controlled solely by the Gwalior Durbar.

The company was first floated in 1921 with a capital of Rs. 19 lakhs. Its operations are conducted mostly in Central India and the north. The places in which the company's buses ply for hire are :

Delhi.

Dehra Dun, Saharanpur, Mussoorie.

Mhow, Dhar, Sardarpur, Barwani, Julwania, Kuksi.

Ujjain, Indore, Barnagar, Ashta, Dewas, Agar, Bhopal, Shajapur.

Ratlam, Sailana, Nimach, Partabgarh, Jaora, Mandsaur, Sitamau, Singoli.

Gwalior, Morena, Ambah, Dholpur, Bhind, Sabalgarh.

Shivpuri, Jhansi, Guna, Biora.

The company, which holds contracts for the carriage of Government Mails, also holds the exclusive privilege for motor transport over the portions of road lying in Gwalior State. The State considered it expedient to introduce this measure in order to stop all unauthorized traffic and competition in the interests of public safety.

As a mark of appreciation of the company's services, Sir William Birdwood, former Commander-in-Chief in India, granted a " Warrant of Appointment " to the company.

Air Services

A recent addition to the forms of transport serving the State has been the aeroplane. Tatas' Bombay-Delhi air service passes through Gwalior, making a halt at the Maharajapur Aerodrome near Lashkar. The flying boat service between England and Australia calls at the Madhosagar Lake.

Eleven miles south-west of Lashkar, Madhosagar has a water surface of 7½ square miles, giving ample room for the largest flying boat to alight. An airport is being rapidly completed in the shore of the lake, and includes a landing jetty, resthouse for passengers, colony to house R.A.F. officers, Imperial Airways officials, Burmah Shell Ltd., a wireless station designed to aid incoming aircraft, and a fully equipped meteorological station. All modern amenities such as electric light and fans, telephones, drainage and water have been provided and the road connecting Madhosagar to Lashkar is to be improved for fast traffic. The flying boats alight about two furlongs from the shore and passengers are brought by launch to the jetty. The total estimated cost is Rs. 5 lakhs.

Maharajapur aerodrome, which lies six miles to the north-east of Lashkar, is estimated to cost Rs. 4 lakhs. At night a powerful light beacon high up on the Fort signals the letter " G " for the guidance of aircraft.

These arrangements which have put Gwalior on the air map of India and of the world, are important because they bring not only the State, but also a

large part of Central India into contact with trans-India and international air routes. Bombay, Calcutta, Delhi and Karachi are now but a few hours away.

Ferries

An important factor in keeping open the rural communications of the State is the number of ferries from which the State derives an income of Rs. 11,392. Eighty of the ferries are in the northern section of the State, the rivers being the Chambal (35 ferries), the Kuari (15), the Betwa (13), the Parbati (9), the Sind (6), and the Pahuj (2). In Malwa there is a ferry across the Narbada and one across the Kali Sind.

Posts and Telephones

The Finance Minister is in charge of the State's posts and telephones. Gwalior had State post offices of its own before the Postal Convention was made in 1885 with the Government of India. It was thus able to enter the convention on terms of equality. Today the net income from the State posts is about Rs. 1¼ lakhs a year and due attention is being paid to the acceleration of the services. The policy of reducing the number of runners and using motor and tonga services instead, is being followed, a specially necessary reform in view of the constantly increasing volume of mail. The number of daily deliveries in towns has been increased and there has been much improvement in rural areas. There are about 225 post offices in the State.

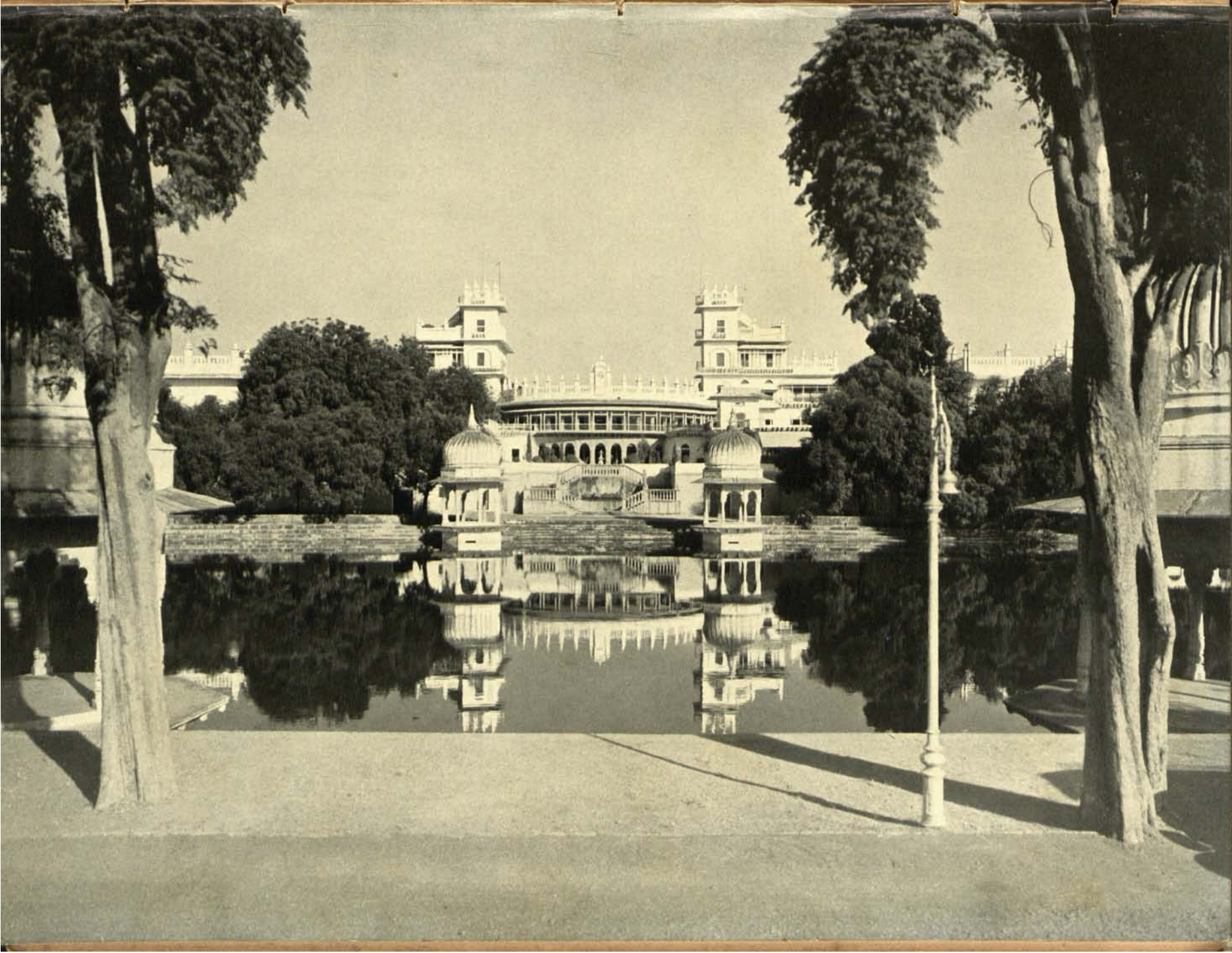
There is a direct exchange of V.P.P. articles between the State and Imperial posts, thus avoiding detention of the packets at offices of exchange. Insured articles and money orders still pass through offices of exchange.

Telephones were introduced into the State in 1904 on lines similar to those developed in British India. The first three exchanges with 14 telephone connections were at Morar, Lashkar and Moti Mahal. In 1909 an exchange was installed at Shivpuri and Lashkar and Shivpuri were connected. Other connections to Chorpura and Panihar were later made, and in 1915 the service which had so far been reserved for the exclusive use of the State and its officials, was thrown open to the public. Owing to the scarcity of telephone materials during the war years, supplies could not meet the demand for installations. But by 1920 a new switchboard of 100 lines had been fitted in the Moti Mahal exchange. In 1925 a local system was established in Ujjain, and a number of public telephones have been installed in Gwalior, Morar, Lashkar, Shivpuri and Sheopur.

Connections to the trunk lines outside the State have now been arranged, and it is possible to speak direct with Bombay.

An attempt was made to use radio as a means of communication and stations were established at Gwalior Fort and Shivpuri. There was also a scheme to connect all the chief towns and mandis by radio, but the service had to abandoned owing to its expense.

MOTI MAHAL, LASHKAR,
The State Secretariat.



CO-OPERATION

The Co-operative movement was started in Gwalior in 1916, and was originally organised on the lines of the British Indian movement. In view of local conditions, however, it was soon found that in the beginning at least, Government should invest the money required for working the co-operative banks and societies and that also the management should be through the agency of Government. Government stated in clear terms that its ultimate object was to withdraw Government money and allow the movement to stand on a purely non-official basis.

While development went reasonably smoothly until the depression of ten years ago and the consequent rapid fall in agricultural prices, the last decade has seen the movement in grave difficulties. In the words of one commentator : " The Co-operative Movement in the State had not fared well during the regime of the Council of Regency. It had almost unconsciously degenerated into a big credit venture which seemed to vie with the village sahukar for the patronage of the agriculturist population."

Soon after he assumed his powers His Highness commissioned Professor V. G. Kale, the distinguished economist and co-operator, to make an intensive investigation into the condition of the movement in the State. When Professor Kale submitted his report the Maharaja invited distinguished co-operators from British Indian Provinces and the States to a conference which was held in January 1938. Professor Kale's scheme for the reorganisation of the Department, with such modifications as were agreed to at the conference, has been sanctioned and is now being put into effect.

The Co-operative Societies' Act, rules and bye-laws have been revised. A co-operative training class was organised at Poona under the supervision of Professor Kale to train the staff of the Department as well as that of the co-operative banks. The training was so conducted as to help rural reconstruction work as well.

History of the Societies

Under the original scheme the formation and operation of the co-operative societies were simple enough. Ten villagers could form a society, subscribe a certain number of shares, value Rs. 10 each in some societies and Rs. 20 each in others, paying one-tenth of the cost of each share per year. The members would then draw up a Haisiyat Register of agriculturists and non-agriculturists and enter each man's capacity or limit for borrowing. This register, according to orders, was to be revised each year and should furnish a correct index of each man's position.

The rural societies were based on unlimited liability while in urban areas liability might be unlimited or limited. The financing central banks to which the primary societies were affiliated had limited liability. Profit making was discouraged, the expenses of management minimised and the spirit of voluntary gratuitous service maintained by appointing honorary officials from among the members. The fundamental object which the organisation was designed

to achieve was to provide for the poorer classes of agriculturists and artisans reasonably cheap credit and to teach them to use that credit profitably by means of mutual co-operation and supervision.

The Gwalior Co-operative Societies' Act, which had been passed in 1918, was in force for eight years during which 17 banks and 2,531 co-operative societies, mostly rural credit societies were organised. It seemed that the movement had gained a firm footing among cultivators because these institutions continued to spring up all over the State in spite of the fact that the movement was functioning side by side with the old agricultural banks whose lending rates were considerably lower than those of the co-operative societies.

A new phase was entered upon in 1925, the outstanding features being the abolition of the agricultural banks, the passing of the Gwalior Banks Act and the provision by the Durbar of an enormous sum for financing the movement. In the light of later experience the latter two factors seem to have been ill-advised. They gave rise to a baffling situation because they retarded the growth of the banks' share capital, exalted the profit motive among shareholders, and destroyed the educational potency of the co-operative institutions.

The Banks Act was for the most part a Joint Stock Banks Act and its working adulterated co-operation. Some of its provisions were the direct cause of the hasty organisation of societies and their reckless financing. The control and management of the banks were vested in perpetuity in the hands of the preference shareholders alongside direct control from Government. A predominance of Government officers on the committees of management does not appear to have been beneficial. The co-operative societies themselves inevitably came under the influence of the anti-co-operative outlook of the banks and as a result lost their co-operative character.

The defects of the system as shown in this brief outline were of course obvious over a long period of years, but their full effects were not felt in the pre-depression period. Only as the crisis progressed did the defects in the system become more and more glaring.

Consolidation

In reviewing the period between 1930 and 1938 it is not possible, unfortunately, to record any marked improvement in the conditions which existed at the close of 1930-31. An alternation of good and bad years, the continued fall in prices, particularly agricultural prices, and the increase in the population have, in their cumulative effect, been shattering for the co-operative institutions in the State. In no less than three districts the fortunes of the movement have been uncertain. Consequently during the whole of this period administrative policy has been directed towards consolidating the existing position, curbing the exuberance of the rural movement, and salvaging submerged banks and societies in the affected areas.

The only encouraging feature is that it now appears to be widely recognised at last that the problem of rural indebtedness is a complicated one and that its successful solution is dependent on general rural development and progress.

Of the seven years in the period under examination, we find that three—1931-32, 1933-34 and 1937-38—were distinctly bad. In 1931-32 the percentage of overdue arrears to total outstandings was 82.5 as against 69.3 the previous year. The deterioration was most marked in Malwa. Progress in 1932-33 was merely nominal without any substantial tendency towards recovery. In this year the lending rates of banks and societies were reduced by 3 per cent. In 1933-34 crop failures were widespread, which meant that collections were poor and profits diminished. There was undue reticence in granting fresh loans.

The next two years also saw partial failures of crops, but recoveries were good and in consequence the percentage of overdue arrears to total outstandings fell from 78 to 73 per cent. In 1935-36 Government reduced the rate on Government deposits with the banks from four to three per cent. and to 2½ per cent. in the case of Bhilsa, Isagarh and Nimach banks. In the same year the arrears of interest on Government deposits with the Sheopur bank for the years 1934-37 were remitted and a further sum of Rs. 25,000 was advanced to the bank to enable it to distribute fresh loans.

A striking feature of the figures for 1936-37 is the marked improvement in overdue arrears which fell from 73.2 to 65.8 per cent. The year 1937-38 was a difficult one because though the monsoon was generally favourable, adverse conditions at critical times damaged the crops in almost all districts and made extensive recoveries of outstandings impossible. During the year profits went down steeply and the overdue arrears rose to 68.7 per cent.

The following table shows the relative position in 1931-32 and 1937-38 :

	1931-32.	1937-38.
Banks	Rs.	Rs.
Number	18	18
Share capital	7,35,100	6,07,402
Working capital	70,02,122	65,37,108
Government deposit	28,08,577	26,99,385
Societies		
Number of societies	4,106	4,004
Number of members	71,069	76,634
Working capital of societies	68,82,825	68,15,620
Total loans due by societies	39,93,135	33,70,296
Overdue arrears due by societies	32,95,566	23,18,132
Percentage of overdue arrears to total loans due ..	82.5	68.7
Average debt per society	973	842
Average overdue per society	804	579
Average debt per member	68	47
Average overdue per member	57	30

The fall in the share and working capital of the banks is due to the adjustment of societies' deposits and shares against their debts. In the past even societies of standing were compelled to keep their own funds invested with the banks at 3 or 4 per cent. and to borrow from the banks for their current needs at 9 per cent. This meant an enormous loss to many good societies, and those which through pressure of hard times were not able to repay their debts were reduced to insolvency. This grievance has been removed by having 80 per cent. of the societies' deposits adjusted against the principal sum due by them and only 10 per cent. against overdue interest. This measure has given a fresh lease of life to many almost defunct societies.

The figures relating to societies are more encouraging. The fall in the proportion of overdue arrears and the gradual decrease in the indebtedness of societies are the most welcome features of the period under review. Considering the meagre profits which agriculture yields these days and bearing in mind the restrictions which have been imposed from year to year on recoveries by coercive measures, the all round improvement which the figures suggest is most satisfactory. The fall in the number of societies is directly due to the continued policy of cancelling unhealthy and defunct societies and of discouraging the formation of new ones. The fact that, in spite of the decrease in the number of societies, their membership has increased by 5,000 is an encouraging feature of the existing situation.

Reconstruction

The movement still continues to be organised by Government. The Director, Co-operative Societies, and his assistants look after the organisation and formation of societies and supervise their work. They control the audit of accounts, the valuation of assets and deal with propaganda and the distribution and collection of loans. Important changes of recent date in the Director's staff include the abolition of the posts of circle officers and provision for each district of a separate staff with a district inspector at the head of each.

Reconstruction has been going on apace. The banks and co-operative societies in Bhilsa, Sheopur and Ujjain have been the first to receive attention. This work involves much more than the mere refixation of instalments. It includes among other things a reassessment of credit limits according to repaying capacity, provision of fresh credit, settlement of bad and doubtful debts, enrolment of new members, overhauling the management committees of societies and above all careful instruction of the members of societies in the principles and practice of co-operation.

In Bhilsa where the movement was heading straight for extinction, Government not only provided for the movement's immediate needs but also "went bond" for the further cost of its rehabilitation. Disaster and disappointment would only have followed had any attempt been made to use in the process of reconstruction the unlimited liability of solvent members. This foundation stone on which rested all hope of popular support was left undisturbed and the whole of the Rs. 71,000 deficit was made good by the Durbar. To enable the bank to afford the societies' members the largest

possible measure of relief, Government advanced to the bank an interest-free loan of Rs. 80,000 and remitted for three years interest on the Rs. 6 lakhs held on deposit by the bank. Such generous treatment at a vital moment has naturally had the desired effect in reviving the movement.

The scheme for the reconstruction of societies in Sheopur and Ujjain districts has already been dealt with. The reorganisation of societies in Guna district is in hand.

Reforms

Professor V. G. Kale's investigations and report have already been briefly mentioned. The broad, general conclusions of his examination are :

That in Gwalior, as elsewhere in India, co-operation is the only means of improving the lot of the rural masses.

That capitalistic legislation has made co-operation in Gwalior official and technical rather than fundamental, and that therefore true co-operation has so far had no chance in the State.

That much of the confusion and stagnation is due to faulty legislation, to staff inefficiency, defects in the system and policy, and to the economic depression, failure of crops and other extraneous causes.

That the position is not altogether hopeless and that the Durbar would be justified in persevering in its attempt to recondition the existing organisation and place it on a sound footing.

The general effect of Professor Kale's proposals is that a system closely modelled on that which is in operation in most Indian Provinces—and at the same time providing for the special needs of Gwalioris—be adopted in the State. That system involves among other things the organisation of co-operative education and training, the repeal of the Gwalior Banks Act, the amendment of the Gwalior Co-operative Societies' Act, the establishment of two apex banks, provision for long-term loans through land mortgage banks, the development of urban co-operation, strengthening the audit staff and the recruitment of educated and trained men in the Government and banks' superior services. The principles of co-operation have also been included in the regular educational curricula of State schools.

Government and banks' officers and village teachers have been trained at the Co-operative training class which was established under Professor Kale's supervision at Poona. This Poona class was to be disbanded at the end of 1939 and thereafter a Rural Service Institute is to function at Shivpuri.

RURAL UPLIFT

The rural uplift movement in the State is still in its formative stages. His Highness is taking a keen interest in cultivators' problems and has earmarked a crore of rupees for the work. The report of an expert committee appointed to prepare a scheme to ameliorate the condition of villagers is receiving the attention of Government and a separate department has been established to deal with this work.

In submitting their scheme, the Rural Uplift Committee note immense possibilities of economic and social improvement; the excellent foundations already laid (see chapters on nation building departments of the Durbar); the desperately low standard of living of the cultivators and their poor standard of farming; the loss of power in the administrative machinery by reason of the absence of objectives, ideals, and co-ordinated direction.

Among the foundations already laid the Committee mention the exceedingly generous provision made by His Highness, the projected radio broadcasting station, the State newspaper, the excellent road and railway systems, motor transport organisation, the water conservation and irrigation systems and the State departments and institutions already developed.

" The possibilities of improvement are exemplified by the homogeneous nature of the people of the State, the fertile soil, a rainfall which, if properly conserved and utilised, is sufficient to mature two crops a year and provide ample fodder for the excellent breeds of cattle already existing, the range of crops, fruit and vegetables which can be ripened, the great opportunities of improvement in both crops and cattle, the quarries, the natural resources and the industries already existing or capable of being introduced."

Women's Part

In dealing with remedies for the present state of the villagers the Committee mention the part that can be played by village women. They say: " From our visits to many village homes, we have observed that although the men are apathetic and idle, the women are hard working, proud of their homes, and up to their lights are doing their utmost to maintain their standard of living and comfort. Their main trouble is poverty and ignorance. We have here, therefore, in the spirit and industry of the housewife an excellent foundation on which to build a Better Homes Movement."

The Committee's economic proposals, by which the purchasing and productive power of the villagers can be at least doubled, include:

Examination of tenancy laws to see what revision is needed to give the necessary security to the cultivator.

Relief of debt.

Cash buying and co-operative selling of crops or State marketing to prevent the cultivator from contracting new debts.

Co-operation as envisaged by Professor Kale's report.

Revision of export duties which at present appear to discourage the cultivator.

Consolidation of holdings by co-operative consolidation societies.

Better farming, including terracing, better seeds, fruit and vegetables, new crops, better implements, pitted manure and green manure, and more work.

Better animal husbandry.

Cottage industries.

Economic and social surveys on the model of Rao Bahadur Patel's " Enquiries in the Bombay Presidency."

Village roads.

Health measures.

Domestic improvement.

Colonisation

Gwalior has a considerable amount of cultivable land which is lying virgin. In order to bring this under cultivation a colonisation scheme was set up in 1923 and chaks and blocks comprising an area of 8,27,785 bighas of land were transferred to the Colonisation Department from the Revenue Department. The districts of Bhilsa, Guna, Shivpuri and Gird were the scene of sectional activities. During the following year the amount of land available for colonisation was increased to 9,66,349 bighas. In the following seven years 6,88,798 bighas were taken up by colonists and many immigrants entered the State.

Special colony officers were appointed at Rampur and Abdori in the districts of Guna and Bhind respectively in order to meet the colonists' requirements and the necessary hospitals, post office, police, khidak, roads, etc., were provided. In 1932 as many as 4,335 settlers arrived in the colonies, 2,250 of them coming from outside the State. In that year the total number of settlers was 23,334 of whom 10,656 came from outside. There were also 4,659 labourers working in these chaks and blocks. Money was advanced to chakdars and their tenants for the purchase of seed and implements and to enable them to sink wells.

When the portfolio of agriculture was abolished the Colonisation Section was incorporated in the Revenue Department. The system is still being followed of encouraging settlers to take up land on attractive terms which are maintained until they are satisfactorily established. The land is then brought on to the regular revenue roll. During 1937-38 206 chaks and blocks were so transferred to revenue proper. They comprised 55,650 bighas assessed for a revenue of Rs. 22,206. During the same year 1,732 chaks and blocks, both allotted and unallotted, with an aggregate area of 6,17,204 bighas, were still being attended to in the New Abadi Section. Of this area 4,55,910 bighas had been allotted. By far the largest number of unallotted chaks and

blocks are in the districts of Shivpuri and Sheopur, the reasons being the poor quality of the soil and scarcity of water and communications.

During 1937-38 11,169 bighas of unallotted land were leased out to new settlers, as against 9,891 bighas in the previous year. The total demand on account of land assessment and Shivai Jama for 1937-38 amounted to Rs. 1,18,950. During the year there were 20,033 settlers, including 3,673 newcomers during the year, but excluding 2,339 transferred to revenue during the same period.

As Guna district has a considerable amount of waste land three colonies were set up there—Rampur, Dhakoni and Piprai. Maratha cultivators, brought from the Deccan at Government expense, were settled at Rampur and Dhakoni. Gujerati cultivators, who came from Baroda State at their own expense, have been settled in the Piprai colony.

In the Piprai colony about 1,516 settlers have taken up land aggregating 14,866 bighas. The aggregate area of the whole colony is 58,499 bighas. Rampur colony has 29,863 bighas and Dhakoni 72,027 bighas. Living in the Rampur and Dhakoni colonies are 1,026 and 2,429 cultivators respectively. Among them are 441 Maratha settlers.

In the parganas of Pachhar and Mungaoli about 197 Gujerati settlers have been allotted 36,372 bighas. They are energetic settlers who are attempting to grow cotton and groundnut. They started a cotton factory at their own expense and when the cotton crop failed in 1937-38 they were able to utilise some of the machinery to extract 6,000 maunds of oil from their groundnut crop and nearly 4,000 maunds of oil from imported groundnut.

During 1937-38 the area cultivated in chaks and blocks was 1,45,193 bighas.

Reclamation

A considerable amount of agricultural land is in danger of erosion in the State, especially in the valleys of the Chambal, Kuari, Sank, Asan and Sind rivers. In the districts of Sheopur, Bhind and Morena the land has been deeply ravined. As these ravines were becoming progressively worse, reclamation was taken in hand in 1924 when the Behad reclamation scheme was sanctioned. In addition to work by official agencies the necessity of reclamation and the prevention of further erosion was explained to the zamindars, and money advanced to them to enable them to undertake work on their land. By the end of 1931 677 large dams and 881 small dams had been constructed, reclaiming 2,61,590 bighas and protecting 6,174 bighas from erosion.

At present the work is going forward in Morena and Bhind districts, being heaviest in Morena. During 1937-38 27 dams and 105 small dams were sanctioned for construction by cultivators and an area of 2,046 bighas was expected to be reclaimed by these works. A loan of Rs. 1,560 was advanced from the co-operative banks to Morena district for the construction of five dams and 10 small dams out of which three dams and eight small dams were completed, reclaiming 111 bighas. A sum of Rs. 1,58,583 has so far been

advanced to the people for the construction of 265 big dams and 386 small dams. Of these 129 dams and 236 small dams were still to be constructed at the end of 1937-38.

Government have been responsible for building 16 big dams at a cost of Rs. 2,62,681 in Morena district and one dam is still under construction. By means of these dams 660 bighas have been brought under cultivation. The total revenue assessed on the land so reclaimed amounts to Rs. 4,678.

P. W. D.

The two Departments of Roads and Buildings and Irrigation were amalgamated by order of the Durbar in 1938. Irrigation and Roads have already been dealt with under their respective headings. The expenditure of the Department during 1937-38 (*i.e.*, before the amalgamation with the Irrigation Department) was Rs. 18,96,470. The allotment for the Department was Rs. 30,84,824. This however was to cover the cost of a number of large works including the Scindia Ghat at Benares ; the Betwa bridge on the Agar-Basoda road ; the Main River bridge ; the Rajgarh-Jhabua road, and the Jaya Arogya Hospital works which are necessarily spread over more than one year.

At the end of 1938 works estimated to cost Rs. 3 lakhs had either been completed or were in progress all over the State in furtherance of the provision of medical facilities to the public. Similarly construction of schools and office buildings for various departments, costing Rs. 22 lakhs had either been completed or were in hand. They included :

		Rs.
Education buildings	nearly	4,00,000
Medical buildings	„	3,00,000
Police buildings	„	5,00,000
Revenue buildings	„	1,00,000
Judicial buildings	„	1,00,000
Customs buildings	„	1,00,000
Other works	„	10,00,000
Total ..		25,00,000

The Scindia Ghat at Benares, which had cracked badly, is being reconstructed of re-inforced concrete on a pile foundation and will be one of the finest ghats in the city. The cost is nearly Rs. 7 lakhs.

Work is undertaken either departmentally or through contractors. During 1937-38 104 works were done by the Department and 1,746 were let out to 37 contractors nearly all of whom were inhabitants of the State.

During the same year the Department had an income of Rs. 1,57,790 more than half of which came from road tax and fees from motor services.

The Department is responsible for the building and maintenance of the circuit houses, dak and inspection bungalows in the State, and for the State buildings which are provided for all civil departments at headquarters of districts and tehsils. There are free quarters for officers wherever necessary for the adequate performance of their duties. For others State buildings are available on rent at various places.

At Lashkar old palaces have been used for the accommodation of the Secretariat and several other Government departments. Other buildings such as the Victoria College, the Jaya Arogya Hospital, the Town Hall, the G. P. O. and the Alijah Durbar Press are fine specimens of Gwalior architecture and compare favourably with buildings constructed departmentally in other parts of India.

Tribes

The main aboriginal tribes in the State are the Bhils (86,571), Bhilalas (38,455), and the Saharias (76,219). The figures show their numbers at the 1931 Census and it is noticeable that in each case they are more than double those in the 1901 Census. These tribes are found in the hilly tracts of Sardarpur district, the Bhils and Bhilalas to the south and the Saharias to the north. The Saharias are also found in Sheopur. They are still extremely primitive in their mode of life, but efforts are being made to educate and settle them as peaceful cultivators.

As a result of various conferences of tribes called by the Durbar, panchayats have been established in the villages and reforms are being introduced gradually. Boarding houses have been established for training their children at Tanda and Bagh. In 1937-38 there were 11 schools and three free hostels for children of Bhils and Bhilalas, and two schools for the Saharias in Sheopur district. A scheme has been formulated to give Bhil and Bhilala children training in crafts which will be useful in everyday life, provided that they abandon their nomadic habits and settle down to village life.

There are more than 3,000 members of criminal tribes in the State—chiefly Moghias and Baories. Though they claim descent from a Rajput clan they have for many generations lived by crime, principally thieving.

The legend of their origin states that when Mainavati, the daughter of the Chief of Mora, was on her way to Agra to become the bride of the Emperor Akbar, she was stung by the sarcastic remarks made about her by the Mora sardars who were acting as her escort. While in camp by the side of a well, Mainavati committed suicide. Afraid of the wrath of her father and of the Mogul Emperor these sardars turned outlaw and lived by plunder. Their descendants infested Malwa as well as the Gird district of Gwalior and seriously interfered with village life.

His late Highness was determined that these people should be weaned from their life of crime and made into useful citizens. A settlement was opened at Mirkabad, but for a number of years little progress was made because the tribespeople proved to be unadaptable to agriculture. When however a

factory was opened and the manual skill they had acquired as professional thieves diverted to artisan's work rapid strides were made. At conferences organised at Mandsaur and Ujjain numbers of these tribes took vows that they would leave for good their former criminal pursuits, and it is noticeable that once settled they rarely drift back into a life of crime. Some years ago mulberry plantations were introduced at Mirkabad, and silk is now being cultivated and manufactured into articles of clothing. Cottage industries have been introduced in this settlement and large areas of land are also under cultivation.

The population of the criminal tribes in settlements is about 3,000 in Malwa and about 700 in Mungaoli, where they cultivate more than 15,000 bighas and 1,343 bighas respectively. They own over 3,700 head of cattle.

REVENUE AND FINANCE

THE Revenue Department is of course the most vital department in any administration. On its income depends the stability of the whole governmental structure. Gwalior's annual income of more than Rs. 2½ crores is derived from the following sources which are enumerated in the order of their importance : Land revenue, which yields nearly half the State's income ; customs and excise, railways, tributes, posts, forests, salt, irrigation, chak blocks (colonies), judicial. Of these the Revenue Department handles land revenue, customs and excise (including salt), forests, irrigation, and colonies. It is also responsible for the local boards, famine department, land records and settlement, and opium.

Gwalior has advanced a long way, both in income and the system of obtaining it, since 1745 when on Ranoji Scindia's death the Scindia estates in Malwa were reported to yield a revenue of Rs. 65½ lakhs. Even in recent years, despite the effect of the economic depression in forcing down the prices of agricultural products, and a series of bad crops, the amount of land under cultivation and the revenue realised have increased. In 1932 89,36,266 bighas of land were under the plough, an increase of more than seven lakhs of bighas in two years. In 1937-38 88,80,213 bighas were cultivated. This fall of 56,000 bighas is easily accounted for by the extremely low prices obtainable for crops, the financial condition of the peasantry remaining as bad as ever.

Collections and Remissions

The land revenue collected in 1932 was Rs. 80,62,884 against Rs. 73,26,299 two years previously. In 1937-38 this revenue had risen to Rs. 95,46,578, with remissions of Rs. 2,30,697. This rise in revenue shows that though the number of bighas in cultivation was smaller, those that were cultivated yielded more paying crops.

Owing to economic stringency the Ruler has been energetic in giving as much relief as possible to cultivators. Revenue remissions have been made every year and rent rates have been substantially reduced, varying from Rs. 11 to Rs. 7 ; Rs. 6 to Rs. 2 As. 12 ; Rs. 8 As. 8 to Rs. 6 As. 8, and Rs. 5 As. 8 to Rs. 2 As. 10 in the parganas of Barnagar and Khachraud.

During the first three years of his rule the present Maharaja wrote off about Rs. 60 lakhs of dues owed by agriculturists. A sum of Rs. 25 lakhs was set aside for emergency credit to cultivators to enable them to buy good

bullocks and seed. Realisation of overdue instalments of loans advanced from the Famine Fund and of the land revenue and water cess for the preceding year was suspended in 1939 in Gird, Bhind, Sheopur, Morena Mandsaur, Bhilsa, Shivpuri and Guna districts. The execution of civil and revenue decrees was suspended in the same year in Gird, Guna, Sheopur, Bhilsa, Sardarpur, Bhind and Mandsaur districts, and the Khachraud and Chachaura parganas of Ujjain and Guna districts.

Other relief included advances for the construction and repair of wells, the remitting of certain forest taxes and an order was made reducing the amount of interest which could be decreed by courts on loans to agriculturists from 12 per cent to 6 per cent. In this way no agriculturist can be made to pay interest of more than 6 per cent per annum.

Land Revenue System

Gwalior possesses a codified land law which with its regulations is modelled on the system prevailing in the United Provinces, with modifications to meet local needs. The Zamindari system is mostly in vogue on the following terms :

The zamindar is the proprietor of the village and is responsible for paying the State revenue which is fixed at each settlement—normally for a term of 20 years. The tenants pay rent to the zamindar and the State has no direct concern with them.

Land revenue is a fixed share of the total average annual rent proceeds of the village. Usually this share is 65 per cent, the remaining 35 per cent going to the zamindar. The proportion, however, varies according to locality.

Stable assets are included in the valuation, as distinguished from hypothetical or prospective income. Irrigated land, under pucca well, tank or bund constructed at the zamindar's own expense, is assessed at dry rates in the settlement following and is exempt from enhancement during the current settlement.

Waste land (padti) in holding to the amount of 10 per cent of the cultivated area is left free of assessment. Waste land above this amount is assessed at moderate rates. Shamlat (unoccupied land) is not assessed at all.

Mango and mahua groves are exempt from assessment. They can be planted without permission on any uncultivated or unassessed land.

Any increased income from extension of cultivation or from land enhancement permissible under the law during the currency of the settlement, goes to the zamindar.

Land revenue covers all cesses. The State has pledged itself not to make any extra levy.

Zamindari Conditions

Zamindari land is heritable by heirs of any degree or adopted heirs according to caste laws of succession. It is also partible, transferable by mortgage, sale or gift or any other form of conveyance. A careful record of rights, known as Khewat, is maintained in each village. All transactions regarding rights in the zamindari are duly noted. For mortgage, sale, etc., registration in judicial courts is compulsory.

A zamindari is not liable to attachment, sequestration or sale by the State except under the processes of law set in motion when State dues are not paid. However, ample latitude of time is allowed after the due date, and when necessary remissions are granted. Allowance is made for unavoidable causes of inability to pay in individual cases and arrears are recovered by easy instalments. Where non-payment is not due to wilful evasion or refractoriness, but is clearly attributable to the deterioration of the village and the consequent diminution in Nikasi brought about by causes beyond the zamindar's control, the Revenue Department can be called upon to grant immediate suspension up to 25 per cent and propose revision of the Jama. If the deterioration has occurred over a considerable tract it has to be re-settled. The policy of the Durbar is to preserve the zamindar on his estate.

If an auction has to be resorted to, the zamindar receives any surplus left after satisfying the State's claim. If the auction does not realise the required amount, the auction may be either approved (and no further action taken) or the village brought under the ryotwari system, which was introduced in 1917. Since the policy of the State is to preserve the zamindar, ryotwari is only introduced under certain specified conditions.

Even if his estate comes to an end under the conditions described above the zamindar continues to hold the Khud Kasht which is land cultivated by himself under ex-proprietary tenure and carrying an exemption of two annas in the rupee. The zamindar is at liberty to take any amount of Khud Kasht in the village, barring the holdings of occupancy tenants, and to lease out the rest to tenants.

No land can be acquired compulsorily by the State, except for public purposes under the Land Acquisition Act which provides acquisition on payment of the market value increased by 15 per cent as consolation for dispossession.

All the above provisions are in favour of the zamindar, and there is only one condition imposed on him: That if there is more culturable waste in a village than he can hope to bring under cultivation within a reasonable time, the excess is sequestered and leased out to a third party on behalf of the State on a potential zamindari title on progressive rates to be charged on the stipulated progressive rate of cultivation. The present rule is to leave sufficient padti for all possible requirements, but not exceeding an amount equal to the cultivated area, to the zamindar. The excess is then disposed of in the manner just described.

Tenants

Though the State has no direct financial connection with the tenants of the zamindar, that does not mean that they are left to the whims and caprices of their landlord. Laws and regulations have been made to protect them from arbitrary ejection, rack renting, and other harassment.

There are two classes of tenants : Maurusi or occupancy tenants, and Ghair-Maurusi or tenants-at-will. The rents of occupancy tenants are fixed at each settlement by the settlement officer and one lease for the whole term of the settlement is given to the tenant. The rent cannot be enhanced except on specified grounds by order of the revenue courts and no such tenant can be ejected except for default in payment of rent without proper excuse and without the court's order.

The occupancy right is heritable, but at present not transferrable or partible.

The rent if unpaid can be recovered by the zamindar only by suing the defaulter in the revenue court and by obtaining and enforcing its decree.

In the case of tenants-at-will patta and kabuliyat are compulsory as without them the zamindar cannot sue for rent or ejectment.

A non-occupancy tenant can become an occupancy or Maurusi tenant in one or more of the following ways :

Continuous occupancy for 12 years.

If he sinks a well or builds a bund in the fields or restores a defunct well or bund he becomes an occupancy holder of all land irrigated by the well.

If he breaks virgin land or land which has lain fallow for more than three years he becomes an occupancy tenant of all such land from the beginning.

Muafidars who are reduced by the operation of the Muafi rules can continue on the same land as occupancy tenants subject to payment of rent.

Chakdars and blockdars failing to fulfil the conditions of their leases are treated as occupancy tenants of the land actually brought under cultivation by them.

The zamindar has power to grant Maurusi rights of his own accord.

Such is the legal outline of the system, but the trend of the Department's policy in actual practice is to enhance the self-respect of the zamindars and hold them to their engagements by moral suasion rather than by legal compulsion. The Irrigation Department, the P.W.D., the Co-operative Societies, the Agricultural Department, the Panchayat Boards, and the Zamindar Hitkarini Sabha, etc., all work to further the prosperity of the zamindars and cultivators.

Settlement Policy

From time immemorial the ruler of the land by virtue of his suzerainty has claimed a certain share of the produce of the land. The share demanded

has varied from time to time, but it is inevitable that on the equitable assessment of this share depends the stability as well as the prosperity of the cultivators and of the State.

The procedure by which the shares of the ruler and the actual tillers of the soil are allocated is known as a land revenue settlement. His late Highness, who on one occasion referred to the agricultural classes as his " bread givers " laid down a very liberal settlement policy the spirit of which is being carried on by the present Ruler.

Until the middle of the 19th century the regular method of collecting Government dues was by Ijaredari, a vexatious system of farming out the revenue. The collectors or Ijaredars, were not paid for their services but were either the highest bidders, accepting liabilities which had been swelled by the exertions of over-zealous revenue officials ; or they were proteges of officials able to dispense such patronage. In the former case the enhanced revenue was either made good by enhancing the tenants' liability or arrears accumulated against the revenue farmers who tried to squeeze as much money out of the ryots as possible. The welfare of the peasantry of course was of no importance.

The Ijaredars lent money at exorbitant rates of interest and sometimes they were also the tipdars or merchant bankers who stood security for the payment of the government demand and made occasional advances of grain or money to the cultivators who were left to their tender mercies.

The first steps against this nefarious practice were taken and the first zamindari settlement was effected in 1853. A second settlement was made in 1860, the third in 1880 and the fourth in 1883. The fifth was made in Malwa in 1893 and in Gwalior (northern) districts in 1898.

The first four of these settlements were very crude. There was no regular survey, no field map, no record of rights, no soil classification, no determined soil rate. In most cases the Government demand was fixed in consultation with the Lambardars and the Chaudhari Kanungos. And in not a few cases it seems that the decisions were arrived at arbitrarily. The fifth settlement was superior to its predecessors in as much as it was based on a regular survey and up-to-date field maps. There were, however, no soil classification, assessment circles, or registers of proprietors' holdings (Khewat).

In the present century settlement work has been much facilitated by the steady growth of the Land Records Department and the present settlement policy is based on an exceedingly sympathetic and liberal outlook.

The cardinal principles of the Department's policy are laid down in the Settlement Manual which emphasises the necessity of the preparation of a complete, accurate and up to date record of the rights and privileges of proprietors, tenants and other members of the village community ; the fixation of an exceedingly moderate assessment of the consolidated demand ; the equalisation of the burden of the assessment by an equitable distribution of revenue over holdings ; and a fairly long term of settlement.

The main records required are :

An up-to-date Shajra Kishtwar (field map).

A Shajra Nasab (verified genealogical table).

A Khewat (register of proprietors' holdings based on the Shajra Nasab).

A Khatauni (list of tenants' holdings based on Parchas, verified slips).

A Khasra (field register based on a verified Khatauni).

A Tahrij (register of tenants' holdings).

The Wajib-ul-Arz (village administration papers).

The Assessment Book.

Rent Rates

The village maps have been brought up-to-date by Tarmim or fresh surveys. Without aiming at any undue minuteness or elaboration, soil classification has been based on such factors as depth, texture and composition of the sub-soil, the presence or absence of deteriorating ingredients such as kankar, sand, etc.; capacity to retain moisture; crop yield and other properties. At present a soil survey and analysis of the whole of the State is in progress, and the information so gained will undoubtedly assist future revenue classifications.

The rights of proprietors, co-sharers and other tenure holders, and various kinds of tenants are thoroughly investigated, verified, defined and recorded. When any tract is taken under settlement it is parcelled out into well-defined assessment circles based on physical, agricultural and economic homogeneity.

In fixing the rent rates regard is had not only to the rates prevailing at the time of the inquiry, but the genuineness, adequacy, stability, stringency or inflation of these rates are also taken into account. Other factors, such as the rates in adjacent tracts, the state of rent collections, the state of development or depreciation of the village, the contraction or expansion of cultivation, and other facts and figures elicited from a carefully made investigation on the spot assist the settlement authorities in determining these rent rates.

Having thus framed these rents or soil rates, the total rental assets of the village are worked out by means of the recorded rent, the proposed rates, and the statistics kept by the Revenue and Land Records Departments. When the new demand is fixed close attention is paid to the assessment of the previous settlement ; the incidence of past and proposed revenue ; the valuation at circle or village rates ; the increase or decrease in dry and wet cultivation ; the population ; agricultural and livestock ; irrigation facilities or disabilities ; financial conditions ; the caste and number of proprietors and tenants ; habits of thrift, parsimony or indolence, industry, luxury and ease in the village community ; the average realisations of rent and revenue ; the situation and configuration of the village ; communication facilities ; nature, comparative value and out turn of crops ; capacity for extension or expansion of cultivation ; alienations ; damage to crops by wild animals, and other allied data. From

this it will be seen that the individual circumstances of every village have to be personally investigated and taken into account before its settlement can be made. These cardinal principles of settlement policy have been most unequivocally enunciated by the Gwalior Durbar, even at the sacrifice of a not inconsiderable amount of revenue.

Local Boards

In addition to the collection of land revenue the district revenue officers are also in charge of the local boards of which there is one in each district. The primary object of these boards is to enlist the association and co-operation of local leading non-officials in such matters of administration as directly relate to welfare work and the material advancement of the people in their areas. This scheme was brought into operation in 1919, but progress has been slow. At present the activities of these boards come under five heads : supervision over and repairs of wells of potable water where needed ; maintenance of minor irrigation works placed under their charge ; cattle improvement ; maintenance of unclaimed and disabled cows in gaushalas ; agricultural improvements.

During 1937-38 the boards spent Rs. 1,45,608 on the construction of and repairs to wells—51 new wells were constructed ; 51 old wells repaired and 50 were under construction. Sixty-seven minor irrigation works were repaired at a cost of Rs. 65,857. The total amount spent by the boards in the maintenance of unclaimed and disabled cows was Rs. 43,997.

Agricultural improvements are undertaken under the direction of the Agricultural Department and during 1937-38 about Rs. 70,000 was spent on free distribution of various kinds of seeds and manures ; fruit yielding trees ; improved agricultural implements ; demonstrations, exhibitions and rewards, and cattle breeding. During the year the boards had a total income of Rs. 5,70,764 including balance from the previous year. Expenditure was Rs. 2,80,034.

Famine Fund

The Famine Fund is the largest of the reserve funds which were laid down under the financial policy instituted by His late Highness. The Director of Land Records is in charge of the Famine Department and during widespread famines a commissioner is appointed. The Fund is used to provide relief to sufferers (apart from remissions and suspensions of ordinary revenue) and grants are made as occasion arises. During the past few years relief grants amounting to over Rs. 28,35,000 have been made. Probably the largest grant made during the fund's history was in 1928 when the Gwalior Durbar sanctioned more than Rs. 44 lakhs as tacavi advances to the ryots.

Revenue Courts

The revenue law and constitution of revenue courts in the State are somewhat different from conditions in British India owing to the fact that an

attempt has been made in the State to separate judicial from executive functions. In British India the functions of magistrate and collector are combined in one official. In Gwalior the revenue officers (subas) are only concerned with revenue work, and though the suba, as an assistant inspector general of police, is the head of the police in his district, he has no criminal powers except to bind over undesirable persons for probable breach of peace.

The revenue courts in the State are : the court of the tehsildar, the court of the suba and the Revenue Bench. The suits cognisable by tehsildars or subas are fully specified in the revenue law. The suba is the appellate court of the tehsildar while the Revenue Bench hears appeals from the orders of the suba. There are two Revenue Benches of Appeal in the State—at Gwalior and Ujjain. The Durbar has revisional powers over the Revenue Bench.

Customs and Excise

Income is derived from customs duties on the import and export of 13 principal descriptions of commodities, and excise duty is levied on country spirit, hemp drugs and opium. The total income from both customs and excise during 1937-38 was Rs. 36,69,985, the cost of the Department being Rs. 4,62,692, leaving a net income of Rs. 32,07,293. This represented a fall of more than Rs. 8 lakhs against the previous year. Customs duties, which realised Rs. 21,74,876, were considerably affected by the steep fall in receipts from export duty on grain. This was mainly due to the very low grain prices prevailing in markets outside the State and a partial failure of crops. Another fall in customs revenue was due to the failure of the cotton crop in Ujjain and Mandsaur districts. These crop failures in turn had their effect on the excise revenue since the people were unable to purchase their usual quantities of excisable commodities.

An income of Rs. 1,08,953 was realised from customs duties at hats and fairs. Owing to the poor state of trade, even this item was down by about a fifth.

Excise duties realised Rs. 9,85,904 in 1937-38 and there was also a profit of Rs. 56,606 on the manufacture of excise opium. The excise revenue was made up of Rs. 6,66,963 from country spirit, Rs. 1,66,931 from hemp drugs and Rs. 92,484 from opium. In addition there were miscellaneous items of income from fines, etc. Consumption of liquor and drugs has shown a progressive fall. There are 1,670 liquor shops ; 919 opium and hemp drugs shops. The quantity of liquor consumed in gallons was 1,12,848, a fall of more than 12,000 gallons over 1936-37. Opium sales were 109 maunds against 116, and hemp drugs (ganja, bhang and charas) totalling 530 maunds consumed, showed a fall of five maunds against the previous year.

Opium

Poppy is cultivated in the State, over 9,000 bighas being occupied by the crop. The Durbar has an agreement with the Government of India to supply 1,145 maunds of raw opium to the Government Opium Factory at

Ghazipur. These operations yield the State a net revenue of about Rs. 1½ lakhs a year.

Salt

The production of salt in the State is limited to 54,000 maunds by an agreement made in 1878 with the Government of India, who annually pay Rs. 3,12,500 as compensation for the relinquishment of dues on imported salt. Ferries and salt and saltpetre (produced in the State) yielded Rs. 13,286 in 1937-38.

JAYA AROGYA HOSPITAL, LASHKAR
Gwalior's Chief Medical Centre.



FINANCE

Having collected the revenue with which to administer the State and provide such amenities as the population can afford to pay for, the next step is to lay out this money to the best advantage—hence the necessity for a well considered long-term financial policy and an experienced administration to handle it.

In Gwalior the idea of using the bulk of the State revenues to develop a highly organised State has been carried a stage further—the creation of funds for nation-building purposes which can be financed out of the funds' incomes without having recourse to the taxpayer's pocket every year.

For example, the first permanent railway loan from Gwalior to the Government of India brought a permanent income in interest to the State. It was later followed by other foreign investments which became a permanent feature of Gwalior finance. Indeed the interest that accrued from these investments was by itself sufficient to maintain several departments of State.

It has been said that State finance in certain of its aspects is somewhat similar to private finance. This is particularly the case in Gwalior's budget arrangements which allow for a balance to be added to the general reserve. This is a very different matter from public finance as understood in Indian Provinces where the budget is an hand to mouth business with the income adjusted every year to allow for expenditure. The Gwalior system tends more to the methods practised by a prudent individual or a joint stock company both of whom build up reserves from income in order to be free from passing crises and to take advantage of possibilities of further developments.

During the regime of His late Highness it became an established rule to make a saving of from 20 to 25 per cent in the annual income. This saving is added to the reserve which is then invested and the interest realised is brought back into the administration for the support of nation building activities. This provision gives the State finances a remarkably firm foundation, for however much crops may fail and the main heads of revenue thus show a temporary fall, it never becomes necessary to retrench or suspend vital services which have already been put into operation. It was this annual addition to the reserve which enabled the State to lend to the Government of India one and a half crores of rupees for railways; to find men and tremendous amounts of money during the Great War; to build hundreds of miles of metalled roads through the State; to construct large irrigation works; to create Shivpuri, a remarkably fine hill station, and to bear without difficulty losses such as those of the Gwalior Trust and the Indian Investment Corporation.

Fund Policy

As the reserves increased it became possible for the Durbar to earmark funds for definite purposes. The largest among them is the Famine Fund, the interest on which goes to meet the extra expenditure necessary in a famine year. And it may be added that even in a year when famine is not officially declared the type of relief given in the State is on no small scale. Even so

the principal of the fund remains intact. There are now as many as 16 other funds, both large and small, which are worked on almost the same principle. The most important of them are those which are devoted to education and irrigation. Such undertakings as the Harsi dam (which all told has cost about a crore and a quarter rupees) and the rapid spread of schools during the past three years, would have been impossible without the aid afforded by these funds.

All these funds have the common feature that each fund is a separate entity with a defined object and a perpetual existence. All of them are outside the general finances of the State. Their treasury and accounts are separate from the treasury and accounts of the State proper. The interest on the funds, guaranteed by the central revenues at a flat rate, goes to swell the respective funds. No portion of the principal of a fund nor its guaranteed interest is taken into the general finances of the State. Since each fund is self-contained and exclusive, the specified object for which it was created is prosecuted only to the extent to which the interest on the fund permits.

The whole conception of the system of funds was to make the various beneficent institutions and movements, not coming within the essential duties of the State and the departments vital to its existence, independent of the fluctuations of the State's revenue, due to calamities like famine or war or to occasional deficits in the normal taxation revenue or to excess in expenditure.

Five Part Budget

The structure of Gwalior's finances was laid down by Maharaja Madhav Rao who insisted that the budget be cast in five parts, each self-contained with its own resources and own spending programme. The advantage of this compartment system is that the vicissitudes of any one part need not cripple the rest. Any deficit in revenue anywhere is neutralised by the postponement of non-essential and optional expenditure, leaving the essential departments and programme works unhampered. The five parts of the budget are :

Normal Budget. On the income side is the taxation revenue and on the expenditure side the annual charges of permanent departments and essential services like Posts, medical relief, etc. These are all financed within a large portion of the income, and another portion of this revenue income is set aside to swell the general State reserve.

Fund Budget. The income is the interest on the various funds at a fixed rate of four per cent. The expenditure side includes all expenditure not falling under the normal requirements of the different departments in whose names the funds have been instituted. The extra interest earned on the investment of the aggregate amount of the various funds also goes to the general State balance.

Non-Recurring Budget. Interest at four per cent on the Gangajali short deposits forms the income of this budget. Expenditure consists of lump sum grants for the non-recurring items of the various permanent departments, such as tents, furniture, liveries, etc.

Budget of Unproductive Programme Works. This budget deals with such undertakings as roads, buildings, preparatory work for agricultural colonies, etc. Grants for these purposes are made from the extra surplus, *i.e.*, the excess over the surplus budgetted for. When works are completed their maintenance becomes a charge on the normal budget according to a definite scale.

Budget of Experimental Earning Department. Opium cultivation, quarries, etc., come under this head. The sanctioned expenditure is allowed to be defrayed directly from the receipts and the net income is credited to the normal budget.

In addition the unspent balances of unlapsable budget items of one year are made available for the next and following years on the requisition of the departments concerned.

When the year's accounts are closed there is under normal conditions a surplus made up of the following items :

Budgetted surplus.

Excess of receipts over the estimates. The latter are invariably conservative.

Excess of interest earned on investments over the rate of four per cent stipulated for funds.

Saving in estimated expenditure under lapsable items.

Saving of estimated expenditure under unlapsable items.

If the last item is reserved to meet further demands the total of the others, minus grants for new programme works, represents the net surplus available for distribution among the various funds.

The departments owning the funds are only entitled to receive interest at the stipulated rate. The principals of the funds are invested in different ways, one of which is productive schemes in the State such as irrigation or railway projects.

LOCAL SELF-GOVERNMENT

THE first Municipal Committee in the State came into existence in 1887 when the then Council of Regency ordered a Municipality to be set up in Lashkar. Year by year the democratic basis of municipalities has been widened and their number increased ; until today there are 50 municipalities and town committees in the State, and it expected that soon they will be allowed to elect their own presidents, instead of having them nominated by the Durbar.

Recent changes, which give these bodies more power to control their own affairs, include the revision of the old Municipalities Act and the new Qanun Municipalities which were brought into force in 1937. Town Committee rules are also under revision. From this it will be realised that just as the central legislative bodies of the State have been put on a more democratic footing by the reforms of 1939, the municipalities are also being democratised as circumstances permit.

Lashkar's Rise

Since it is the oldest municipality in the State the progress of Lashkar is worth describing briefly. After its formation in 1887 the administration was controlled by a secretary appointed by the Durbar. Conservancy work was carried out by the city police.

A new era was opened in 1898 when Maharaja Madhav Rao took over the reins as President of the Municipality. With his customary energy he set to work to improve the state of municipal administration, had municipal laws duly framed and compiled for the guidance and future administration of the city. Immediately after these laws came into force a board consisting of 62 nominated members, a president, a vice-president and a senior member was established. The next move was for the municipal administration to take over the health and engineering departments. The income of the municipality soared from Rs. 52,628 to Rs. 2,64,357, and expenditure from Rs. 43,541 to Rs. 2,45,667.

When the Ruler vacated the presidential chair in 1913 the foundation of Lashkar Municipality had been laid firmly. The work carried out during his presidentship included: Improvement of Jayaji Chowk, the Victoria Memorial Market, the Town Hall, the statue of the late Maharaja Jayaji Rao,

the city electric light installation, drainage survey, public gardens, the Park Hotel, and the Municipal Ayurvedic Dispensary.

The Municipal Act was brought into force in 1912, and the municipalities of Gwalior and Morar were amalgamated with the Lashkar body. The new board consisted of 112 nominated members.

Elections were later introduced, but the activities of the elected board were not entirely fortunate. In 1931 the elected board was dissolved by the Council of Regency, for maladministration, and replaced by a nominated board, pending the revision of election rules. The revised rules were sanctioned in 1932 and under them the elected board consists of a president, elected, nominated or official, according to the Durbar's choice; 30 elected members, and 15 nominated members. The franchise was extended to undergraduates, retired civil and military officers, zamindars, persons paying Rs. 24 a year rent, and literate persons paying house tax. Women were also enfranchised.

The past eight years have seen a considerable amount of improvement in Lashkar, Morar and Gwalior. Many roads have been asphalted, a middle class housing scheme costing Rs. 40,000 has been completed at Mullaji-ki-Sarai at Lashkar and further rehousing is in hand. Other schemes completed include: widening of the Station Road and bridges, Morar Park, Empress Road Park, and Chaori Park.

Municipal Progress

The enactment of the Municipal Act in 1912 marked the beginning of other municipalities in the State, until today their number, including town committees is 50. Dabra, Bagh and Kanad having recently been allowed town committees. Further progress towards municipal development is being made through the agency of the mandi committees (managements of the controlled markets in the State) which act as town committees in market towns where these latter bodies have not as yet been introduced.

The annual grant by Government to the municipalities varies between Rs. 4 and Rs. 5 lakhs according to the work in hand. Out of this the municipalities of Lashkar and Ujjain receive important shares.

Population in the towns is increasing and the 1931 Census showed an average density of 20 people per bigha. In Lashkar this rose to over 44 people per bigha and in Ujjain to 26. This density of population and its increase has brought such matters as water supplies and sanitation prominently to the forefront. Sanitation in the State towns cost Rs. 1,51,944 during 1937-38. The Durbar policy of giving all towns a pure drinking water supply is being energetically put into practice and details will be found in the chapter on Health in the State.

Considerable progress in these matters has been made at Ujjain. In this town the municipality consists of a two thirds elected and one third nominated body of members. It has been working under the guidance of a non-official president for many years. The franchise is liberal, including undergraduates, literate persons paying house tax, and women.

Throughout the State the average municipal income per head of population is Rs. 1-4-2. The production of a Municipal Manual is in hand for the guidance of administration staffs.

Town Improvement

The Town Improvement Trust is closely associated with the Department of Municipalities and undertakes large scale works. It is also responsible for preparing town extension schemes to prevent haphazard development of places which are growing rapidly. Recent recommendations include: the survey of all towns to obtain reliable material on which to base schemes; the preparation of tentative master plans for town extension and improvement (most towns in the State are expected to undergo extension or improvement); and the preparation of schemes of water supply, drainage works, roads and housing.

Town improvement schemes include schemes of exclusive interest to certain towns which should be financed by those towns; schemes in which towns and districts have a common interest—such as approaches to mandis and bazaars, where a part of the cost should be obtained from the revenue of the districts; schemes for transit roads of which the larger part of the cost may be borne by Government, and productive schemes. In the case of water supply schemes a Government subsidy is generally necessary and the same can be said of drainage schemes from which no monetary return can generally be expected.

It is suggested that purely local improvements should be financed out of local taxation by the municipal and town committees in the expectation that the Durbar will be generous in providing loans at a low rate of interest or subsidies where the interests of the districts of the State are involved.

Local Boards

The operations of the local boards have already been dealt with in our survey of the Revenue Department's activities. These boards are intended to bring local leading non-officials into the administration by giving them the district welfare work to do under the supervision of the suba (district revenue officer). The boards are expected to hold three meetings a year, but in some of the districts the idea of associated responsibility is of slow growth and there is comparatively little activity. In the districts of Gird, Bhind, Mandsaur and Sardarpur, however, special meetings were held in addition to the prescribed meetings. These boards discuss and submit proposals for improvement which are passed on to the authorities concerned.

Panchayats

The Panchayat, or village council of elders, is probably one of the oldest public institutions in the world and in India reached a high degree of development and responsibility, for not only did it regulate the civic life of the village, but it also acted as a law court as well. Developments in the country during the past 200 years have tended to discourage the panchayats

and indeed in many areas to kill them altogether because all executive authority was put in the hands of officials appointed by the Provincial or State Government. Experience has however shown that a village is healthier from the civic point of view if the stabilising influence of a panchayat of the community's leading men is allowed to exert itself.

The consequence has been that, particularly during the past decade, the Indian Provinces have made considerable efforts to revive panchayats and to re-develop the sense of civic responsibility among the villagers. This move has met with varying success, depending on how thoroughly all civic initiative had been eradicated by the all-pervading influence of officialdom.

The necessity for village panchayats was emphasised by the growth of the rural uplift movement which of course depends for its progress on the corporate responsibility of the whole village. It has also been found that many minor disputes can be more satisfactorily settled before a council of village elders than by encouraging the villagers to waste their time and money on lawyers, and congesting the business of the courts. In many parts of the country legal assistance in putting a case before the panchayat is not allowed, a precaution which effectively prevents a villager from ruining himself over what is usually quite a petty grievance.

Gwalior was one of the first Governments to realise that panchayats could still do useful work in the modern world, and His late Highness ordered panchayat boards to be set up in 1912—years before provincial governments took any active steps. These Gwalior boards can deal with petty civil, criminal or revenue suits, and as a result save the minor courts a great deal of time and expense. Today there are nearly 200 panchayat boards in the State and as new settlements are established in colonisation or irrigation areas the formation of panchayats is encouraged.

LAW AND JUSTICE

A JUDICIAL administration which can compare favourably with any system to be found in the Indian Empire, on account of its up-to-dateness and purity, is one of Gwalior's proudest possessions. The system vouchsafes the security of the person and the property of a subject in ample measure and includes the essential features and improvements known to exist in any other system.

A marked feature of the State constitution is the separation of the judicial from the executive functions—a feature which has not been achieved in British India. Few Indian States can boast of such a pure system of administration of justice as exists in Gwalior. The credit for the inauguration of the present system goes to Maharaja Madhav Rao who soon after his accession took in hand the reorganisation of the judicial system. By 1910 he had succeeded in overhauling the old machinery and had established an independent system of judicial administration under which the judicial functions were completely separated from the executive. A network of courts was established throughout the State and justice was put within easy reach of every subject.

Another important change was the right given to the subject to sue the State. Thus in matters of civic rights and contracts the State and its officials and institutions are not immune and the subjects possess the same right to sue them as they possess against any private person who infringes their rights.

It is evident from recent changes that the present Ruler holds the same views about justice as did his father. Almost his first public act after his investiture was completed, was a visit to the High Court where he impressed on the judges the importance which he attached to the judiciary. He later deputed the Chief Justice of Gwalior to visit the High Courts of Bombay, Allahabad and Lahore to study the form of procedure in vogue in each of these courts and to recommend any changes which could usefully be made at Gwalior.

In order to maintain the purity of judicial administration in the State a number of changes have been introduced during the present Maharaja's regime. For example, it has been insisted that all judicial officers should possess adequate legal qualifications for their posts and that their characters should be consonant with the high responsibilities which they have to undertake. A systematic attempt has been made to root out corruption.

All judicial officers have been instructed to write their judgments and other orders with their own hands. Pleaders must present pleas, memorandums of appeal and similar papers personally in the courts concerned. They must not leave this work to their clerks.

The Courts

The constitution of both civil and criminal courts in the State is modelled more or less on the system of judicial administration in vogue in British India ; though there is the marked difference that the judicial functions are separated from the executive ones. A district's whole judicial machinery, both civil and criminal, is under the direct control of the District Judge appointed in each district. In Provincial India the judicial system is under a dual control—the District Magistrate who is also the head of the police in the district, is in charge of the criminal side while the District Judge deals with civil matters. The only officer who combines in himself both criminal and civil jurisdiction is the District and Sessions Judge.

The distribution of the Gwalior courts is based on revenue units as in Provincial India.

Each Pargana has a Pargana Judicial Officer's court. He has jurisdiction up to Rs. 1,000 in civil suits and possesses the powers of a second class magistrate on the criminal side. He combines in himself the functions of a Munsif and Tehsildar in Provincial India.

A Munsif (or subordinate judge of the second class as he is called in some areas) exercises jurisdiction only in civil matters, the criminal powers being possessed by the Tehsildar who also does the revenue work. There are 43 pargana courts in the State, an additional officer having been created in 1938.

At the headquarters of each district are the court of the District Sub-Judge and the court of the District Sessions Judge. Both these courts possess territorial jurisdiction over the whole of the district. A district sub-judge exercises original jurisdiction up to Rs. 5,000 in civil matters and is a first class magistrate. He also hears appeals from the orders of the pargana judicial officers in the district, both in civil and criminal matters.

The district sessions judge exercises original jurisdiction in civil matters up to Rs. 50,000 and tries sessions cases as a sessions judge. The district judge hears appeals from the orders of the district sub-judge both in civil and criminal matters.

These courts appear to be analogous to the courts of a subordinate judge and a district judge at the headquarters of Provincial Indian districts, though the powers exercised by them are somewhat different. The subordinate judges in provincial India possess unlimited civil jurisdiction and usually do not perform any criminal work unless they are specially invested with the powers of an assistant sessions judge. The district judge in provincial India seldom does any original civil work though he is empowered to take any original

civil work on to his file if he likes. He hears appeals from the orders of munsifs, subordinate judges (in cases up to Rs. 5,000) and first class magistrates of his district.

It may be noted that there is an extra stage of appeal before the district sub-judge in the State which does not exist in Provincial India. There are in the State 23 district sub-judges and nine district judges, three additional sub-judges having been created in 1938.

Above the district judges is the High Court of Judicature of Gwalior State, which is situated at Lashkar. It is the court of appeal in the State both in civil and criminal matters and has jurisdiction over the whole of the State. The Gwalior High Court also possesses original jurisdiction in civil cases of over Rs. 50,000. The High Court consists of a Chief Justice, two Puisne Judges, and an additional judge who has been temporarily appointed to clear off arrears of work.

Judicial Committee

The Judicial Committee of the Department of Law and Justice, which constitutes the Supreme Court of the State, has unlimited powers, and all revisions and appeals from the Revenue Bench and the High Court lie with this Committee. Recently the system of appeals to this Committee has been simplified, and provision has been made for the elimination of frivolous appeals and revisions.

Small Causes Courts

There are two Small Causes Courts in the State—one at Lashkar and the other at Ujjain. They exercise jurisdiction inside their respective municipal limits only. These courts have jurisdiction up to Rs. 200 and the Gwalior Small Causes Court Act provides one appeal on facts to the district judge.

Two benches of Honorary Magistrates—one at Lashkar and the other at Ujjain—exercise jurisdiction within their respective municipal limits. They have the powers of second class magistrates.

Recent Changes

During the present Maharaja's regime a number of steps have been taken to improve the machinery of law and justice in the State. In addition to increasing the number of judicial officers and the campaign against corruption, the standard of the judicial personnel is being steadily raised by the insistence on legal qualifications among candidates for new appointments.

Another improvement has been the establishment of the High Court and all other judicial courts of the capital in a spacious modern building which had been built at a cost of nearly Rs. 6 lakhs. It has now been equipped for its present purpose at considerable additional cost and must be one of the most up-to-date seats of justice in the whole country.

Efforts are also being made to improve the standard prevailing among the pleaders and advocates appearing before these courts. A Bar Association has been formed and the status of pleaders has been improved.

In 1897 there were only six legal codes in the State and of these the Penal Code, the Civil Procedure Code and the Criminal Procedure Code were the most important. Since then a steady attempt has been made to bring the laws of the State into line with the laws in British India. A large amount of legislation covering the main fields of public and private activity in the State was passed during the first two decades of the present century, but in spite of this the opening of the century's third decade showed that considerable legislative work still remained to be done, not only to complete the list of laws but also to keep them up-to-date. The pace has been accelerated and particularly during the past three years the condition of the State's system of justice has been considerably advanced.

A sidelight on this progress is the fact that the Gwalior High Court, which until recently dispensed justice without any reference to legal practice outside the State, is now willing to take into consideration advocates' references to judgments delivered in the High Courts of British India. In other words the legislative progress of the State has come into line with the Provinces, and uniformity is now possible.

Today there are 10 codes in the State, including those already mentioned ; 31 manuals, and a large body of circulars and rules which have the force of law. These latter mainly define departmental procedure in the State and sometimes contain the law on certain points, as in the Land Records Manual, High Court Manual and Interstatal Matters Manual (Extradition Manual).

Recent legislation includes : The Factories Act, the rules of which were issued in 1935 ; the Cotton Ginning and Pressing Factories Act 1935 ; the Protection of Factory Labourers Act 1935 ; the Poisons Act 1936 ; Gwalior Motor Vehicles Act 1937 ; Gwalior Municipal Act 1937 ; Gwalior Carriage by Air Act 1938 ; Gwalior Judicial Oaths Act 1938 ; Gwalior Majority Act 1938, and the Gwalior Electricity Act 1939. Up to the present 64 laws have been enacted by the Durbar.

Social Legislation

During the past decade considerable progress has been made in social legislation, the first Act of importance being the Gwalior Child Marriages Restraint Act which came into force in 1932. When legislation on this matter was proposed the Majlis-i-Am passed a resolution in favour of a Bill by an overwhelming majority. Marriage below certain prescribed ages is penalised—12 years in the case of girls and 16 years in the case of boys. The Act does not declare under-age marriages void but provides punishment—fine or simple imprisonment, or both—for the husband and the persons actually participating in the celebration of such a marriage.

The Act further prohibits unequal marriages by providing that no person of or above the age of 45 shall marry a girl whose age may be below 16 years. A breach of this provision is also punishable with fine or simple imprisonment or both. To make these prohibitions effective the Act empowers courts to

issue injunctions to prevent the celebration of marriages coming apparently within the scope of the Act.

The Gwalior Widow Remarriage Act came into force in 1936, a resolution on this matter having been introduced in the Majlis-i-Am by a non-official elected member. The resolution was passed by a majority. This Act is of a permissive character and is designed to grant liberty to those Hindus who may wish to adopt a different custom in accordance with the dictates of their conscience. A difference of opinion existed concerning the validity of marriages contracted by Hindu widows and the legitimacy of children of such marriages.

The Act which is intended to promote good morals and public welfare, removes all legal obstacles to the remarriage of Hindu widows. A special feature of the Gwalior Act is that no person, society or panchayat can excommunicate any person or widow contracting such a marriage. Nor can any person assisting in the celebration of such a marriage be excommunicated. Disobedience of this rule is punishable by a fine which may extend to Rs. 500. If the transgressor be a society or panchayat every member of such body shall be so punishable.

The Gwalior Nukta Act which became law in 1938, is an attempt to control wasteful ceremonial expenditure. In particular it deals with the dinners which surviving relatives customarily give to caste people in commemoration of a dead person. Under the Act the number of caste people who may be invited to participate in such a dinner is restricted to 51. Breach of this rule is punishable by fine, simple imprisonment or both. The Act also provides for the issue of injunctions to prevent infringement of the law, and for enhanced punishment if the Act is contravened after service of such an injunction.

In order to prevent caste tyranny against persons complying with this law, the Act provides that such person shall not be excommunicated, but if an attempt to excommunicate him be made, every member of the panchayat concerned shall be punishable with a fine or simple imprisonment or both.

Department of Law and Justice

Until 1910 the judicial administration of the State appears to have been carried on by the Chief Justice in addition to his work in the High Court. In 1910, however, a new office, the Member for Law and Justice was created and the administration of legislation and allied subjects was placed in his charge. Since the present Maharaja's reorganisation of his Government the Minister for Law and Justice deals with appeals and nigranis, judicial administration, the legislative bodies, rules and regulations, publication of codes and digests, etc., drafts of agreements on behalf of the Durbar and legal advice ; permission to publish newspapers and enforcement of the press law.

Since the proclamation of the new Constitution for the State certain laws which have been held to infringe the principles of civil liberty have either been repealed or are to be submitted to the Praja Sabha and the Samant Sabha for repeal, amendment or further continuance.

THE ARMY

THE Rulers of Gwalior are soldiers first. That is the Scindia tradition and it has been well exemplified by the present Ruler who began his military training at the age of four as a private at a rupee a day in the Maharani's Own Infantry. To come nearer the present, he was among the first of the Princes to offer his army, the resources of his State and his personal services to the King-Emperor on the eve of war in 1939. He thus repeated the great gesture which his father had made in 1914 when he poured out troops and money for the Allied cause.

As a matter of fact, the traditions of the Gwalior Army are of necessity inseparably connected with the House of Scindia. From the beginning the Scindia was Gwalior's first soldier. If we look back into the history of the State the meaning of this statement becomes obvious. Ranoji Scindia, the first of the family to go to Central India, got his opportunity because of the military prowess which he had shown while in the service of the Peshwa. Because of his high qualities as a soldier he was sent to take part in the reduction of Malwa which the Marathas planned to add to their empire. In the Confederacy of Generals which took shape under the Peshwa the Scindia was always the most important. Indeed it was not very long before Mahadji Scindia shone forth as the greatest military leader of the age—a military leader with an army so well organised that he was able to play a decisive part in the control of the destinies of North India.

Western Methods

It was during his regime that Gwalior's Army became accustomed to western methods of army organisation and warfare. In Mahadji's service was the celebrated Benoit de Boigne, one of the most skilful of the European soldier-adventurers who appeared in the disturbed India of those days.

It is an interesting sidelight on the extent to which the Scindias and their armies were one, that when the first British Resident was appointed to the Scindia court, he found that he had no city durbar to attend, but had to keep contact with a Prince whose headquarters were a continually moving military camp. It was this Lashkar, or armed camp in which the Rulers customarily lived, which gave its name to the State's present capital when the encampment finally settled down on the spot where Lashkar now stands.

Among Mahadji Scindia's successors, Maharaja Jayaji Rao Scindia of Mutiny fame was one of the greatest generals of his time, and on account

of the situation in the country he was often engrossed in the affairs of his army. Indeed it was not until peace had been satisfactorily established that he entrusted the administration of his forces to a Commander-in-Chief, assisted by an Adjutant-General and Quartermaster-General. The first Commander-in-Chief was General Bapu Sahib Avad, his successors being Sardar Appa Sahib Angre, and Lt.-General Kashi Rao Surve. After the latter's death the post of Commander-in-Chief was abolished and that of Inspector-General, Gwalior Army, created. Brigadier-General Sardar K. S. Abdul Gani was appointed to this new post and was followed by Colonel Ram Rao Bhosle. He died shortly after appointment and was succeeded by Major General Rao Raja Sardar Ganpat Rao Raghunath Rajwade. The Present Inspector-General is Colonel S. R. Bhosle.

Modern Developments

The past half century has seen many developments. One of the most important has been the increase in the number of Gwalior subjects serving in the State Army. Forty years ago the Scindia's Army was enlisted mainly from outside the boundaries of the State, although several of the northern districts of Gwalior provided very suitable recruits for certain regiments of the Indian Army! Maharaja Madhav Rao recognised the necessity for recruiting his army from a class which had a stake in the State and his wise policy has been carried on by the present Ruler.

Other developments during the present century have been the progressive improvements made in the condition of the Army. The authorised strength of the Gwalior Army under the treaties with the Paramount Power is :

Artillery : 48 guns and 480 gunners.
Infantry : 8,000 drilled soldiers.
Cavalry : 2,000 sowars.

This force was maintained at a cost of about Rs. 24 lakhs until 1898. By this time it had become clear to Maharaja Madhav Rao that at this figure all ranks were underpaid. Consequently in that year he carried out a reorganisation of his forces, reducing them at a stroke by 3,000 men without effecting any reduction in expenditure. This made it possible to raise the pay of the men (infantrymen had previously received Rs. 7 a month and cavalry sowars Rs. 22 a month). The tremendous change in economic conditions which occurred during the next 20 years necessitated further reductions in strength and revisions in scales of pay. By 1921 the cost of maintaining the Army had risen to Rs. 34 lakhs, the strength being 8,658 in all arms.

1922 Changes

In that year the Government of India and the Princes conferred on the reorganisation of the Indian State Forces, a conference in which His late Highness took a leading part. The scheme was that all regular units of Indian States armies were to be included in a plan of efficient training and armament. From among these units the rulers were to offer such as they could spare for the service of the Empire in time of emergency.

His late Highness implemented the decisions of this conference by carrying out another reorganisation of the Gwalior Army in 1922. Here the experience gained during the war of 1914-18 came into play, and the strength was reduced to 6,922, but the total expenditure rose higher, owing to the revised scales of pay. As a result of successive reductions, the strength went down to about two-thirds of the authorised strength, though the cost is now over Rs. 40 lakhs a year.

While reviewing His late Highness's work for the Army it may be added that not only did he improve the condition of the men and the arms they bore, but he was also responsible for instilling the discipline and character which has made the Gwalior Army the smartest among the States' forces. He was convinced that army training was the finest start for anyone—boy or girl—and during the annual manœuvres he insisted on the attendance of all civil officers who had purposely been given honorary army rank. He maintained that this was essential in order to imbue in them a spirit of discipline and a capacity for hard work.

Though developments necessarily occurred more slowly after Maharaja Madhav Rao's death, the Council of Regency were not unmindful of the Army—especially the necessity of housing it in adequate conditions. The excellent cantonments at Ujjain, Agar, Guna and Lashkar bear witness to the work done during the Regency period.

The present strength of the Army is :

A Class Units

1st Jayaji Gwalior Lancers	499
2nd Alijah Gwalior Lancers	528
3rd Maharaja Madhav Rao Scindia's Own Gwalior Lancers	529
Gwalior Transport Corps	408
Gwalior Mountain Battery (2.75")	273
3rd Maharaja Scindia's Own Gwalior Infantry ..	766
4th Gwalior Maharaja Bahadur Battalion	766
7th Scindia's Training Battalion	517
Total strength of A Class Units	4,286

B Class Units

1st Maharani Sakhya Raja's Own Gwalior Infantry.	696
2nd Maharaja Jayaji Rao's Gwalior Infantry ..	706
B Battery Gwalior Horse Artillery (18 pdr.) ..	157
Total strength of B Class Units	1,559

IRREGULAR TROOPS

C Class Units

A Battery Gwalior Horse Artillery (9 pdr.) ..	121
Divisional Cavalry 1st Regiment Silledari	297
Divisional Cavalry 2nd Regiment Silledari	299
Beda Risale Ekkan	926
Total strength of C Class Units	1,643

The regiments of Silledari and the Beda Risale Ekkan are the hereditary forces whose forefathers rendered invaluable services in the past. The irregular forces have also been reorganised, their scale of salary has been raised and arrangements have been made for efficient training.



Col. Sardar M. N. Shitole,
Minister for Police.



Major General Rao Raja Sardar
G. R. Rajwade, Army Minister.



Sir Charles Carson,
Finance Minister.



Lt.-Col. Rao Bahadur Bapu Rao Saheb
Pawar, Minister without Portfolio.



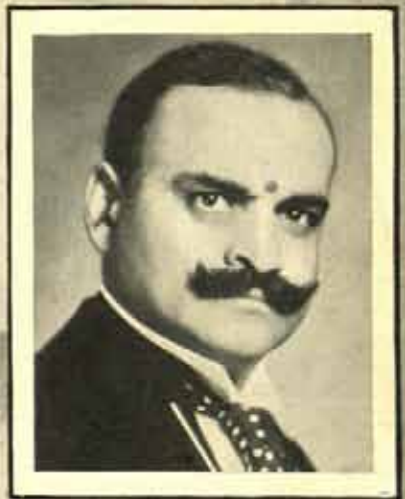
Nawab Saduddin Hyder,
Minister for Law & Justice.



Sir Manubhai N. Mehta,
Home Minister.



Rajmantrapravina S. P.
Rajagopalachariar, Revenue Minister.



Major Sardar C. S. Angre,
Foreign & Political Minister.

PAST SERVICES

The services rendered to the Empire by the Gwalior Army are worthy of its name and past traditions. At the outbreak of hostilities in 1914 units of the Gwalior Army included among the Imperial Service troops were: 1st Jayaji Gwalior Lancers, 2nd Alijah Gwalior Lancers, 3rd Maharaja Madhav Rao Scindia's Own Gwalior Lancers, 3rd Maharaja Scindia's Own Gwalior Infantry, 4th Gwalior Maharaja Bahadur Battalion, and the Gwalior Transport Corps. The first three regiments were principally employed in furnishing detachments to proceed with remounts overseas, on remount training duty in India, or on garrison duty at various posts on the Frontier.

Apart from remount duties the complete regiment of the 1st Gwalior Lancers was mobilised in 1919 on the outbreak of war with Afghanistan, and formed part of the 4th Cavalry Brigade. It remained at Meerut until September of the same year, after which it returned to headquarters in Gwalior.

The 2nd Gwalior Lancers sent two complete squadrons under Major Abdul Gaffar Khan to Bannu in 1916. The squadrons became part of the Bannu Movable Column and furnished garrisons at various posts. Later in the same year they became part of the North Waziristan Field Force and remained with that Force until the middle of 1917. They then formed part of the Bannu garrison, remaining there until March 1919 when they returned to Gwalior.

Two squadrons of the 3rd Gwalior Lancers, under the command of Major Sambhaji Rao Bhosle, were sent to Quetta in the middle of 1915, being joined there during the following year by the remaining two squadrons which had been doing duty at Sibi. The regiment was principally employed in furnishing detachments for garrisons at Chaman-Saifullah, Nushki and Hindubagh. In March 1916 a troop was attached to the Movable Column operating against raiders near Suriab and in the successful action that ensued Sawar Ibrahim Shah won the Indian Order of Merit for saving the life of a wounded British Officer.

In August 1917 the regiment was transferred to Rawalpindi to form part of the 10th Cavalry Brigade and was employed on garrison duties until February 1919 when it returned to Gwalior.

Transport Corps

The Gwalior Transport Corps was able to answer the urgent call made for transport of the field and signal troops of the Indian Cavalry Division which was proceeding to France in September and October 1914. Gwalior Transport furnished 107 officers and men, 198 ponies, 66 tongas and 12 A.T. carts. These detachments arrived at Marseilles in November 1914 and proceeded to the front, being present at the battles of Festubert, Neuve Chapelle, La Conture, La Bassee, Bethune and Ypres. In June 1915 a detachment of 53 other ranks was attached to the Indore I. S. Transport and proceeded with that unit to Gallipoli and later to Salonica. They returned to Gwalior in October 1918.

The remainder, left in France, were concentrated at Marseilles and towards the end of 1915 were despatched to Basra where they were employed for some time at the Base Transport Depot at Makina. The unit was here reinforced by six officers, 292 other ranks, 227 ponies, and 100 A.T. carts from Gwalior. The Gwalior transport was employed chiefly in detachments, one of which was attached to the 2nd Q.O. Sappers and Miners and was present at the battles of Kut, Baghdad, Rumedi, Khan Baghdadi and Tekrit. Another was attached to the 6th Cavalry Brigade with which it was present at Kirkuk and Mosul. A third was employed at Baghdad on convoy duty at the advance supply depot and proceeded later to Babylon.

The Corps after 3½ years' service in Mesopotamia, returned to India early in 1919 and was immediately sent to Meerut for refitting and reorganisation, after which it did convoy duty in the Khyber during the Afghan War. It eventually returned to Gwalior in 1920 after an absence of over five years.

The Gwalior Transport Corps has in fact more experience of foreign service than the rest of the Gwalior Army. The Gwalior Imperial Service Transport joined the Chitral Expedition in 1897-98. In 1900 when war broke out in China His late Highness presented a hospital ship to the British Government and proceeded to China in person on General Gasseli's staff. In the South African War he presented several hundred artillery horses which proved of great value to the British Government.

East African Service

The 3rd Gwalior Infantry Battalion, under the command of Lieutenant Colonel Ganpatrao Nimbalkar, was mobilised in 1914 and joined Major-General Tighe's Brigade, then concentrating at Deolali. With the rest of the Brigade it embarked at Bombay in October and arrived at Tonga in November where it took part in the unsuccessful attack on Tonga. A few days later it arrived at Mombasa whence it was sent to Zanzibar for garrison duty, remaining there nearly a year. A detachment of one Special Officer, 8 Indian Officers and 204 rank and file took part in the demonstration on Dar-es-Salam in 1915. In October 1915 the Battalion was sent to Mombasa and furnished guards for the defence of Mukuba Bridge and over the prisoners of war at Lamu. The following June the Battalion was relieved by the 101st Grenadiers and proceeded to Voi, having already sent a detachment under Major Dattaji Rao Kakde to Nairobi. Two months later the Battalion returned to Mombasa where it found that the Nairobi detachment had already arrived.

In November 1916 the Battalion was sent to Kisumu and thence embarked for Muzuza whence it marched to take over posts on the Central Railway (German East Africa) from the Bharatpur Infantry, headquarters remaining at Saranda. In the following month Kilamatindi was taken over by the Battalion and in February 1917 the line of communications for which the Battalion was responsible included Tabora, whither headquarters were transferred.

Throughout 1917 the Battalion was employed in providing detachments and garrisons for various posts and along the Central Railway such as Nairobi, Jabora, Lamu, Kilindini, Dar-es-Salam, Siwgida, Morogoro, Iringa, Kideti, Kimamba, Mkata Ngera, Ruvo and Killosa. The Battalion arrived in Gwalior on the last day of 1917. On the outbreak of hostilities with Afghanistan the Battalion was again mobilised and in June 1919 joined the Waziristan Field Force with which it remained until October of the same year when it returned to Gwalior.

Suez Canal Defence

The 4th Gwalior Infantry Battalion, under the command of Lt.-Col. Girdhari Singh, left Gwalior in October 1914 to join the 32nd (Imperial Service) Infantry Brigade under Brigadier General H. D. Watson at Deolali. All these troops arrived in Egypt towards the end of the year and went to Moascar Camp (Ismailia) to take part in the defence of the Suez Canal. From this time until the attack on the Canal by the Turkish force under Djemal Pasha in the following February the Battalion was employed on the construction of defences, and previous to and during the attack, held the trenches over a distance of three miles between Ferry Post (Ismailia) and El Ferdan. After the retreat of the enemy the Battalion left two platoons in the trenches and marched back to Moascar.

During 1915 and 1916 the Battalion was chiefly employed on the onerous work of patrolling the various sections of the Canal and in the construction of strong positions on the east bank.

In November 1916 the Battalion, together with the Alwar Infantry, was moved to Romani on the Palestine line of communications commanded by Brigadier General H. D. Watson. During the following eight months the Battalion garrisoned various posts as the advance troops moved forward, finally being located at Rafa, a short distance behind the entrenched line before Gaza. Here the Battalion suffered casualties from enemy aircraft.

Towards the end of September 1917, half the Battalion under the command of Lt.-Col. Girdhari Singh formed part of the Composite Force which took over the Mendur section of the trenches in front of Gaza and defeated the Turkish army from Gaza to Birsheba. While in the line and during the third battle of Gaza the Battalion formed part of the 20th Indian Infantry Brigade. Shortly after the battle the Battalion concentrated at Gaza.

At the end of the year the Battalion was moved to Jerusalem where it was employed on garrison duty and also furnished detachments for Hebron and Bethlehem.

In April 1918 the 4th Gwalior Infantry was moved to the Jordan Valley and took part in the defence of Ghoraniyeh and Auja bridgeheads. It was attached to the 60th Division during the operations at Shunet Nimrin and the attack on Es-Salt. In July 1918 the Battalion was moved back into rest camp near Jerusalem and suffered from a severe epidemic of malaria. Three weeks later, however, it was again moved to the Jordan valley for the defence

of the Ghoraniyeh bridgehead. In September it took part in the final and decisive defeat of the Turkish army by forming part of the forces operating against Es-Salt and Amman.

Towards the end of November the Battalion was relieved at Amman and thence moved back *via* Jerusalem to Suez. It reached Gwalior towards the end of January 1919 after more than four years' continuous service overseas, during which it had earned the commendation of every G. O. C. under whom it had served.

At the time when this is being written war is upon us again. His Highness the Maharaja has placed his services and his forces at the disposal of the King-Emperor. Nor in the past has he made any secret of his views on the needs of Indian defence. When he laid the foundation stone of the 1st Gwalior Lancers' lines recently, he told how it made him shudder to hear Indian politicians insisting on reducing the strength of the army. They wished to cut down military expenditure to a dead minimum level of economy. He emphasised the necessity of looking ahead and strengthening Indian defences so as to stand by the Empire in the hour of trial.

In view of the international situation late in August 1939 His Highness the Maharaja Scindia sent the following telegram to the Viceroy :

> " The recent international developments and the war clouds looming large on the horizon during the last few days have caused immense anxiety and the peace of the world seems threatened. The indefatigable effort of Great Britain to preserve peace has revealed that all that is humanly possible is being done to avert the crisis. In view of the tense political situation and in keeping with the traditions of my House and my deep attachment to the person and throne of His Imperial Majesty the King-Emperor, I deem it my sacred duty and proud privilege to place my troops, my personal services and all my resources at the disposal of His Imperial Majesty the King-Emperor whenever required. I have no doubt that Your Excellency would be so kind as to convey this message to His Imperial Majesty the King-Emperor and assure him of my fullest co-operation."

Subsequent to sending this telegram to the Viceroy the Maharaja issued a stirring appeal to his subjects to rally in support of the British Government for the successful termination of the War. He said :

> " My beloved and faithful subjects : The ways of Providence are inscrutable and His decree must be obeyed. By His divine dispensation force must now decide the issues between the contending nations and solve the questions that could be settled by peaceful negotiations only if reason had the upper hand in quarters intoxicated with insensate lust of power, insatiable ambition, and inordinate greed.
>
> " In vain have Great Britain and France tried all that was humanly possible to save the world from the tragedy of a war between nations. To-day we are faced by the spectre of modern war, which is very different from the conflicts in the past—a war which is simultaneously carried on by land, sea and air, a war that spares neither soldier nor civilian, a war that deals destruction and death not merely to the fighting forces but also to women and children, to the aged, the weak and the decrepit.
>
> " Without any formal declaration of war, Germany has attacked its inoffensive neighbour Poland, a country whose security was guaranteed both by France and by Great Britain. In honour bound to keep their

pledge to Poland, the Governments of His Imperial Majesty and France had no other recourse but to declare war on Germany. From 11 o'clock in the morning on the 3rd of September 1939 Great Britain is at war with Germany. His Imperial Majesty's enemies are our enemies and therefore I hereby announce that my Government is also at war with Germany.

" Bound by close ties of traditional friendship with His Majesty's Government and stirred by sentiments of loyal attachment and deep devotion to His Majesty's person, I have in this crisis placed at the disposal of His Majesty's Government my services, my army and all the resources of my State. In doing so I was fully conscious that not only loyalty but a sense of the highest patriotism also demanded that Indians should pay special attention to the grim realities of the present crisis. In this hour of trial I do hope that my beloved subjects will stand united, firm and bold and will whole-heartedly support my action, especially because it is actuated by the highest motives and resolutely attached to a policy of prudence, wisdom and moderation.

" I therefore appeal to all my beloved people whatever be their station in life to render unflinching help to a righteous cause and to do their utmost to assure a successful prosecution of the war and its speedy termination.

" In the success of the British arms lies not merely our own safety and the independence of small nations but also the existence of civilisation. Let us all join together and in all solemnity offer our prayers and supplications to our Creator and invoke His blessings for successfully vindicating a righteous cause."

THE POLICE

THE Gwalior Police Force was established in 1889 and reorganisations to meet the changing needs of the State have been carried on at intervals of from six to ten years, the most recent reorganisation having been put into force in 1937. The present strength of the police force, including armed police, is 5,665, the annual cost being about Rs.14 lakhs. In addition there are about 8,000 chowkidars who do watch and ward duty in outlying towns and in the villages. They cost the State about Rs.5 lakhs a year. Some of the big jagirs also maintain police forces of their own.

The present condition of the force can best be told by describing the reorganisation which took place between 1935 and 1937. In the former year the Gwalior Durbar, having decided on a reorganisation, obtained on loan from the U. P. Government the services of Mr. R. N. Marsh Smith who was employed as Inspector-General of Police.

The objects of the scheme of reorganisation were :—

To improve the morale and reputation of the force and in particular to eradicate corruption ;

To improve the standard of efficiency ;

To provide adequate reserves not only for emergencies but also for adequate leave and training reserves.

These objects were to be achieved without any substantial extra cost.

A preliminary examination of the state of the force revealed that substantial reductions in strength could be made by reorganisation and reallocation. Excess of numbers was found in the armed police, while on the other hand an increase in numbers in certain ranks of the civil police was essential.

Staffing Changes

The armed police were accordingly reduced from :—

1 Superintendent of Police, 1 Inspector, 56 Sub-Inspectors, 372 Head Constables and 2,480 Constables

to

1 Officer in Charge, 27 Sub-Inspectors, 250 Head Constables and 1,500 Constables.

At the same time the civil police (omitting ranks above that of Inspector) were increased from :—

29 Inspectors, 135 Sub-Inspectors, 607 Head Constables and 2,577 Constables

to

36 Inspectors, 190 Sub-Inspectors, 208 Head Constables, 253 Naiks and 3,000 Constables.

This rearrangement left a net decrease of 268 head constables and 443 constables as against an increase of 26 sub-inspectors. Readjustments were also made in the higher ranks.

A revised allocation of this new force made it possible to provide the necessary reserve of both civil and armed police, thus achieving one of the three main objects of the scheme. The reserve provided 17 sub-inspectors and 438 constables for the civil police and 177 head constables and 1,286 constables for the armed police.

Pay Scales

At the same time this reduction in number served to achieve the first object of the scheme—an improvement in the morale of the force. This improvement could only be made by an increase in pay, and this increase was made possible by the reduction in numbers. The scale of increase not only resulted in an actual improvement in the initial pay of most ranks, but also provided for incremental scales either by gradation or according to service.

The following table shows the present position as compared with conditions obtaining before the reorganisation was brought into force in 1937 :—

Rank.	Monthly Pay. Old Scale.	Present Scale.
	Rs.	Rs.
Dy. I. G. of Police	500	600
Supdt. of Police	150–300	225–400
Dy. Supdt. of Police	*Nil.*	200
Inspectors	80–150	100–175
Sub-Inspectors	40– 70	50– 80 + Horse allowance Rs. 15 + Cycle allowance Rs. 5
Head Constables	13– 35 (only one at Rs. 35)	20– 30
Naiks	*Nil.*	18 (civil police only)
Constables, A. P.	13– 14	13– 16
Constables, C. P.	11– 12	12– 15

In addition to the new scale there are certain allowances to various ranks for duties entailing special responsibilities or extra work or hardship.

At the same time it is laid down that increased qualifications are insisted upon in the case of new entrants to each rank and that promotion to the new grades is only given to those who subsequently prove their fitness.

Armed Police

At first sight the reduction in the number of the armed police might appear to run the risk of undesirable results from the point of view of security. Actual experience since the new scheme has been in force has proved that such is not the case. The incidence of crime, especially serious crime, has shown a marked decrease in the State. The first steps in the reduction of armed police was the abolition of the force of these men posted at each police station (one head constable and six constables). It was found that these men did no duties which the civil police could not perform.

The armed police were accordingly removed from the police stations, but a sufficient number of firearms, both breach loading and muzzle loading, were left in the police stations. These weapons are intended to provide both for the security of the police station and for the civil police to be armed with guns when out on patrol. This step alone resulted in the reduction of 805 men from the 115 police stations.

In the district headquarters the armed police were organised into units of companies and in some cases these companies were posted at long distances from each other. By amalgamating these companies into one unit of armed police at the headquarters of each district a considerable reduction in strength and in the supervising staff was possible.

The allocations, instead of being fixed on the number of men necessary for a company, are now fixed on the number necessary for the actual armed police duties to be performed in the districts. This step enabled a further large reduction. More reductions were made by prohibiting the use of armed police for duties in the offices of the superintendents of police and for orderlies to inspectors, and by increasing the number of hours of duty from five or six to eight hours a day.

The reorganisation of the armed police at Lashkar and in Gird district has resulted in the formation of one unit known as the State Armed Police which takes the place of the units posted at the rate of one at each police station in Lashkar, while two companies were working in Gird district, one at Lashkar and the other at Antri. There was also another unit known as the Headquarters Unit, posted in Lashkar.

The present amalgamated body not only provides the reserve armed police for the whole State but also furnishes men for armed police duties in Lashkar district. This item alone resulted in a saving of eight sub-inspectors, 16 head constables, and 144 constables. Part of this saving was, however, reabsorbed in providing an increase in the strength of the civil police.

Civil Police

The most important change in the civil police reorganisation was the addition of a second Deputy Inspector General of Police who was posted at Ujjain to supervise work in the Malwa districts. At present each D.I.G. of Police is entrusted with the supervision of police work in five districts, the

remaining district, Lashkar, being under the direct supervision of the Inspector General of Police. At the same time the post of Enquiry Officer was abolished.

The reduction in superintendents from 17 to 13 with one officer in charge of the reserve armed police was achieved by the combination of the superintendence of the Lashkar and Gird districts under one officer. Two more superintendents were accounted for by abolishing the post of superintendent in the office of the Police Minister and the reduction of one superintendent in the C.I.D., his work being handed over to the D. I. G. of Police, Malwa.

At the same time provision was made to have a small reserve of officers in training for the post of superintendent of police. It was necessary that when not officiating as superintendents they should be able to assist the existing superintendents in districts where work happened to be particularly heavy. To meet these requirements the rank of Deputy Superintendent of Police was created and two officers were appointed after a course of training in the Moradabad Police Training College.

The number of inspectors has been increased to allow of a second inspector being added to districts where the work was too heavy for one officer—Bhind, Morena, Shivpuri and Shajapur being cases in point. At the same time the officials known in the past as Prosecutors were included in the rank of Inspector and styled Prosecuting Inspector. They are responsible for the prosecutions launched in the whole of the district instead of being merely prosecutors in the sessions courts.

In raising the number of sub-inspectors from 135 to 190 the scheme was to provide a second officer in police stations where the work was heavy; to provide sub-inspectors for seven newly created police stations; and to provide a reserve of 17 sub-inspectors.

Constables

The next group of officials, the Head Constables, provided the reformers with an astonishing collection of grades and ranks, with scales of pay varying from Rs. 11 to Rs. 35 a month. There were head constables in charge of outposts, head moharrirs, moharrirs at police stations and head constables in charge of chowkies and in the railway police. Out of all this variety two ranks have been created—that of head constable with three grades and one of naiks. Head constables now perform the more responsible duties while naiks hold charges of a minor nature, such as chowkies.

At the same time the position has been rendered less complicated by abolishing a number of rural chowkies. This was possible owing to the opening of new police stations and a proper system of patrolling rural areas based on police stations. A special system of beat duty has been devised in the cities.

The number of constables allotted to each police station is now fixed according to the actual requirements of each station instead of, as previously, fixing the number of constables according to the class of police station (14 constables for 1st class and nine for 2nd class).

Though the abolition of outposts in rural areas has necessitated an increase in the number of rural police stations it was found possible to make reductions in the cities of Lashkar and Ujjain. The number of police stations in each of these cities was reduced from six to three, while a central police station (kotwali) was established in both Lashkar and Ujjain. At the same time the watch and ward staff, apart from the thana staff, required in these cities has been carefully worked out. Each city has been divided into beats with six constables in each beat and a separate number for traffic duty. The system of division into beats was extended to all the district headquarter towns and watch and ward staffs fixed accordingly. In most towns away from the headquarters of the districts the small watch and ward staff has been replaced by town chowkidars on the basis of one chowkidar to every 750 of the population. A certain number of head constables and naiks were allotted to do the work of moharrirs in the courts. Previously there had been no provision of staff for these duties.

C. I. D. Scheme

One of the most determined steps in the improvement of crime detection has been the reorganisation of the State C.I.D. In the past only informers drawing allowances varying from Rs. 15 down to Rs. 5 a month had been employed as district staffs for the C.I.D. There was one informer at the headquarters of each pargana. This system has now been given up and a C.I.D. staff (known as the District Intelligence Staff) has been allocated to the headquarters of each district. Changes have also been effected in the C.I.D. staff maintained at the headquarters at Lashkar and Ujjain.

On the Gwalior Light Railway there was formerly one constable attached to each railway station, with small outposts consisting of two constables only at the termini and at Sabalgarh. The staffs at the termini were considered insufficient and were therefore increased by the allotment of one naik and three constables at each place. A system of patrolling was arranged so that instead of the former plan of having only one constable at each station, two constables spend a night at one railway station out of three each night. They visit each of these three stations according to a schedule.

It must be evident, however, that pay increases and reallocations of staff were not by themselves sufficient to improve the morale and efficiency of a force. Improvement in recruitment, training and methods of work were also needed.

Recruitment

Special attention has been paid to recruitment to all ranks. In the past the higher ranks of the Gwalior Police had been filled by transferring senior men from other departments. This system was not entirely satisfactory because such men usually had had no police training. Today young men are enlisted in the rank of deputy-superintendent, given training at a recognised police training school and eventually obtain promotion to the rank of superintendent after obtaining experience in a lesser charge.

The staff in charge of the prosecution of cases were found to lack legal training in the majority of cases. This has been remedied by recruiting prosecuting sub-inspectors from persons who have obtained the degree of LL.B.

It has also been decided that recruitment to the rank of sub-inspector, civil police, should allow a greater proportion of outsiders (though as far as possible residents of the State) than by promotion from the lower ranks. A number of young men of good social standing and educational qualifications are selected each year and sent for training to a police training college. In this connection arrangements have been made with the Central Provinces and United Provinces Governments to permit these sub-inspectors to be trained in their police colleges. This reformation in the recruitment of sub-inspectors is interesting since it represents a very definite attempt to interest a better type of individual in a police career. This should lead not only to increased efficiency but also do much to improve the reputation of the force. At the same time provision has been made for the promotion of suitable head constables to the rank of sub-inspector.

Recruitment to the rank of head constable is now only done in rare cases and is practically confined to the armed police. Normally the ranks of head constables are to be kept filled by promotion among constables. The recruitment of constables is now governed by strict rules which lay down physical and literacy qualifications.

All recruits must now come up before the Inspector General of Police for approval. A set of rules has been drafted to lay down a regular system of promotion. Advancement no longer depends on recommendation but on the possession of certain qualifications which are ascertained by prescribed examinations.

Training

Police training has been subjected to thorough overhaul. As already mentioned recruits to the higher ranks go to the police training colleges of the C.P. and U.P. For constables a central police training school has been opened on a temporary basis at Lashkar. The necessary buildings and a regular staff are to be provided at an early date. These arrangements replace the police training school, which was already established at Lashkar prior to 1937. This institution was abolished as it was found on investigation that it was not possible to give efficient and complete training there. The armed police have also been taken in hand under a special scheme which provides one month's intensive training twice a year for each man.

The importance of adequate building accommodation has not been overlooked in this reorganisation. In many places police buildings, particularly the buildings accommodating the watch and ward staffs in towns, were inadequate. An extensive programme, for which Rs. 17 lakhs has been sanctioned, is to provide adequate buildings. Adequate police lines are being built for the armed police at the headquarters of each district, where they had not existed previously, and a number of up-to-date buildings have been erected

to replace dilapidated structures. It is hoped that in due course quarters for all station officers and head moharrirs will be provided at police stations.

Dacoit Campaign

When reorganisation was started there were certain districts of the State where dacoits were a definite menace to the villages. Cattle had to be driven home during the middle of the afternoon, and schools regularly closed early so that men, women and children could all be within their villages before dusk. It was found that one of the main difficulties of the police in coping with these armed bands was the inadequate number and inefficiency of the weapons at their disposal. For example, ·303 rifles were only provided for two units while the only other breach loading firearms were ·476 muskets which are now obsolete.

The armed police are now being equipped with ·410 rifles—1,000 of them having already been provided. This provision alone is reported to have had a remarkable effect on the outlaws in outlying districts. Numbers have been shot or forced to submit to arrest while others, finding that they are now up against efficiently armed and led forces, have quitted the State territory.

The reformers found that the uniforms formerly supplied to the force were inadequate and prevented a smart turnout. The system of replacement was also unsatisfactory. The Durbar has agreed to provide a liberal scale of uniform with a period of serviceability for each article. Certain changes in the articles of uniform have also been made. Similarly provision has been made for the regular supply of all other articles of equipment.

The efficiency of the various units in covering the areas allotted to them has been greatly increased by additions to the police fleet of motor vehicles. This increase is to be progressive. A new feature in the police budget is the provision of an adequate allotment for sports and recreation.

Efficiency

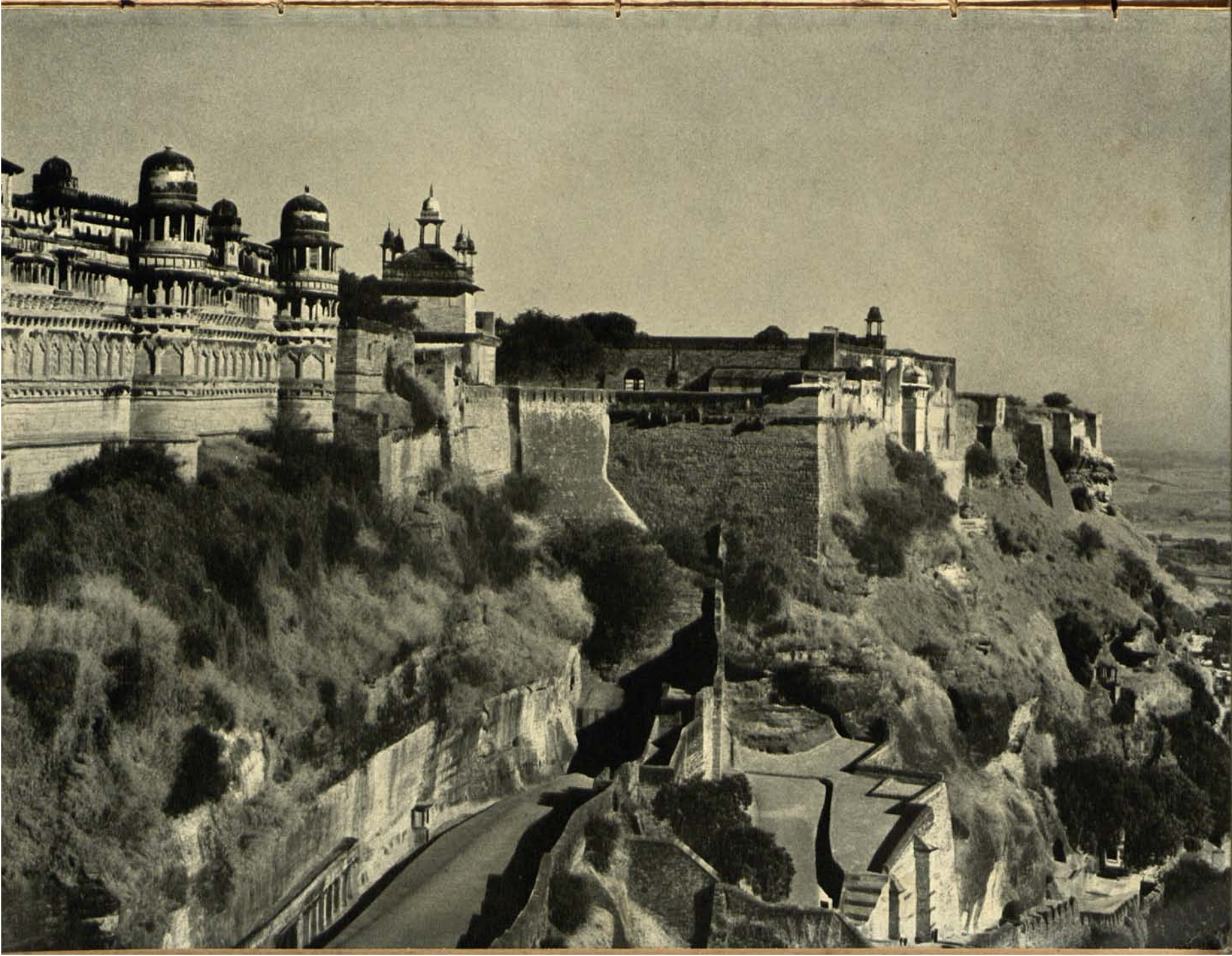
In order to ensure that the scheme is being properly carried out and a satisfactory rate of improvement maintained, the amount of inspection done by the Inspector General of Police and the two Deputy Inspectors General has been considerably increased. Ceremonial parades are held by the Inspector General in every district of the State and at these parades the oath of loyalty to the Durbar and its officers and of fair dealing with the public is taken by new entrants to the force in the presence of a large attendance of the public of the locality. It is intended that regular visits to district headquarters and police stations should be maintained by these higher officers.

A number of departmental orders on internal administration have been issued in order constantly to improve the work of the department. A number of registers have been revised and certain new registers have been started, the most important of these being a crime register for the superintendents

whereby they are enabled to supervise the handling of all crime and not only heinous crime as heretofor.

As a result of this reorganisation there has already been a considerable reduction in the volume of crime, reference having already been made to the disappearance of dacoits in a number of districts. There has been a pronounced improvement in the smartness and turnout of the force and the number of complaints of misconduct and corruption against police officers received from the public has considerably decreased.

GWALIOR FORT
The Road up the Eastern Face and Man Singh Palace Facade.



RELIGION

COMMUNALISM, based on religious differences, has probably been the worst disturber of the peace of India during the past quarter of a century. Reports of riots and disputes over places of worship are only too common —especially in Northern India, which includes territory bordering on Gwalior State. Compared with the enmities which are liable to flare up without warning in the United Provinces and the Punjab—to name only two areas—Gwalior is an island of peace and goodwill ; though it must be added that this condition can also be found in many other parts of Central India where the communities have learnt to live together in peace.

It is difficult to give any single particular reason for this communal amity in State territory—except perhaps to say that the Gwalior Durbar not only upholds the religious freedom of its subjects, but is also generous in maintaining the places of worship of all communities. Narrow exclusiveness is not allowed to emphasise the difference between Hindu and Muslim. The Ruler though a Hindu, assists his subjects at such a time as Mohurram, and rides in the Tazzia procession which includes an imposing parade of the State Forces. A Tazzia of magnificent dimensions is contributed by the Durbar and the Maharaja is present at the ceremonial burial of it. On such an occasion he is attended by his Sardars, both Hindu and Muslim, and the festival is reckoned to be just as much a State affair as Dussera or Ganpati.

Furthermore, several of the leading Sardars of the State are Muslims, their families having reached this honoured position by reason of the remarkable services which their ancestors performed for the Ruling House.

Though no-one could possibly doubt the orthodoxy of the House of Scindia, it is the considered opinion of its members that a Prince is responsible for the welfare of his subjects, regardless of the creeds which they may individually profess. In this great responsibility there is no room for narrow mindedness.

Intriguers who have tried to communalise any branch of the Durbar's service have been firmly dealt with and as a result there has been no call for the complicated system of minority claims such as bedevil many parts of the rest of India.

Administration

Probably a cogent explanation for the smoothness of religious existence in the State is the system whereby leaders of all religious communities have a

hand in managing the endowments and the maintenance of places of worship in the State. This plan was formulated by Maharaja Madhav Rao who believed that all places of worship should enjoy the same respect, regardless of the religion to which they belonged. At the same time he insisted that the funds intended for religious purposes should be properly utilised. It was his earnest wish that no place of worship of any community in the State should be left unattended.

His plans were brought into practice by the promulgation of the Religious Endowment Act of 1914 and the foundation of a trust with a donation of Rs.15 lakhs from the Durbar. Following this, a Central Aukaf (Religious Endowment) Committee came into existence at Lashkar and branches were established throughout the State. Today each Tehsil has its Aukaf Committee which is connected to the Central Committee. Persons of all religions and creeds are members of the Central Committee and the Committees are entrusted with the maintenance of places of worship. The Central Committee also makes recommendations for spending the income of the Endowment Fund. Sanction for the construction of a new place of worship has to be obtained from the Durbar, and permission is only given when Government feel that the place will be properly maintained.

The Committees are invested with power to control persons who receive grants or cash allowances from Durbar funds. In cases where mismanagement of places of worship is detected the Committees can discontinue the grants.

Today the total funds in the Religious Endowment Trust exceed Rs. 26 lakhs which means that about Rs. 1,30,000 is allotted each year for expenditure. Cash Nemnuks amount to about Rs. 1,20,000 a year. Repairs to places of worship are financed from the Shri Jeeja Maharaj Parmarthic Fund, though wherever possible temples and mosques are repaired by public subscription. No distinction is made between places of worship belonging to different religions.

Muafidars

While the Aukaf organisation comes under the Home Minister, Muafi is one of the internal subjects handled by the Foreign and Political Minister, along with the Jagirat and the Court of Wards. The Muafi section controls the Muafidars—persons to whom cash allowances or free land have been granted in return for services—usually religious—performed by them, or for some similar consideration.

A liberal policy has been followed in this matter, though a firm check has been put on all possible wasteful expenditure of funds granted, by preventing their use for unauthorised purposes. This was done by convening a committee of Muafidars and fixing with their help a scale of expenditure necessary for the performance of every day ritual, the maintenance of the temple, maintenance of their families and the education of their children.

The Brahmacharya Ashram at Shivpuri was opened to educate Muafidars' children on proper lines. Besides a general education they receive religious

instruction, training in delivering sermons and kathas and performing rites according to the Shastras which it is hoped will equip them to discharge properly their duties as priests and teachers of religion. To ensure that priests perform religious rites properly a Pujavidhi Committee has been established and the pujaris are required to pass an examination in religious ritual.

The Muafi officer inspects places of worship and distributes religious books as prizes to encourage them to turn out really efficient pujaris. Literate members of this class are asked to teach boys during leisure hours and classes have been started for this purpose in a number of temples. A Muafidars' Handbook and a series of pamphlets and other useful publications have been issued by the Department.

There are about 140 Muafidars in the State and they receive conditional grants of about Rs. 44,400 a year. The number of cash Muafi holders is about 2,000, receiving annuities aggregating more than Rs. 5 lakhs.

Festivals

Gwalior's most important religious festivals are Dussera, Ganpati and Mohurram when State processions are taken out and Lashkar celebrates on the grand scale.

Dussera, which usually comes in October, is essentially a military festival, the ritual over weapons and animals of war being the most significant part of it. In less settled times Dussera marked the opening of the campaigning season for the army; the country being again open after the mire and floods of the monsoon. Nowadays, though the Scindias do not appoint Dussera as the day on which to ride forth to war with their neighbours, the Ruler keeps the festival as becomes the heir of a great military tradition. Gwalior's Dussera festivities are regarded as being among the most splendid of their kind in the country.

Ganpati—Ganesh Chaturthi—which comes in August-September, is the festival of Ganesh, the Elephant Headed God, the son of Shiva and Parvati, who is renowned for his powers as a remover of obstacles. His festival, which is the occasion for the immersion of his image in places where there are rivers or sea, has acquired considerable significance in the State.

Mohurram, which comes towards the end of the cold weather, is the Muslim festival commemorating the death of Hasan and Husein, the sons of Ali. This also has become a State festival, the Durbar contributing several thousand rupees to build the largest of the Tazzias which are taken in procession. During the period of Mohurram the various Departments of the State take turns at decorating the Imam-Bara in which the Tazzia stands.

Shivratri, Shiva's Night, which comes about February, is an occasion for festivals at a number of important temples which are dedicated to Shiva.

IMPORTANT RELIGIOUS PLACES

Both Hindu and Muslim (Moghul) regimes have had their influence in establishing places of religious importance in the State. Though many are of course of local fame and draw crowds of villagers to their festivals and melas, there are 25 outstanding temples, tombs, and monuments which hold high place among devotees all over the State and in many other parts of the country.

SHRINE OF TRIMBAK MAHARAJA, alias Anna Maharaja, is a much frequented shrine at Goth Nimbalkar in Lashkar. A Bhandara is held every year and the offerings come to about Rs. 500 annually.

TOMB OF SHAH GAFFAR SAHIB, commonly known as Baba Kapur's monument, is in the old town of Gwalior. An Urs (religious fair) is held every March when people from Lashkar, Gwalior and Morar visit the tomb in large numbers.

TEMPLE OF GANPATI, near Ladheri Gate, Gwalior, belongs to Mahadev Basdev Rajwade. When Sardar Vinchurkar raided Dholpur, his son Ganpat Rao was killed in battle, and this temple was later raised in his memory. His wife became a Sati and a raised platform marks the site where this event took place.

TOMB OF MUHAMMED GHAUS, perhaps the most important Muslim monument in the State, is on the outskirts of Old Gwalior, and is a fine specimen of early Moghul tomb architecture, with an impressive dome and beautiful stone jalis (screens). Muhammed Ghaus was well known as a saint and spiritual teacher of the emperor Akbar. His Urs is held in January.

GWALIOR SIDDH, in Gwalior Fort. Aurangzeb is said to have seen a vision in this sacred place and to have built a mosque near it. A fair is held in the month of Kartik.

KOTESHVAR MAHADEO TEMPLE, on the road between the Urwahi Gate of the Fort and Old Gwalior, was built by Maharaja Jayaji Rao about 1881. The temple takes its name from the large Shiva linga, which is decorated with innumerable repetitions of itself, installed in the shrine. The linga is said to be much older than the temple and to have been brought from Gwalior Fort. A great fair is held here at Shivratri when Brahmans are feasted and Shiv Leelamrit is recited on behalf of the Durbar. Anushthan is also performed here for parjanya, rain.

TOMB OF KHWAJA QANUN SHAH, half-way between Lashkar and Gwalior, marks the resting place of the celebrated saint known as Khwaja Sahib. His Urs is held in September.

TOMB OF CHHINGA MIAN, at the foot of the Fort ramparts, recalls another ardent devotee of Islam who moved to Gwalior from Delhi. His Urs is held in February.

TOMB OF KHWAJA UMRAO SAHIB, in Katighati Road, Lashkar, is the scene of an Urs in April.

TOMB OF MEHRAB SHAH, near Gol-Pahadiya and the Tigra Road, is another of the series of Muslim saints' tombs around the capital. Mehrab Shah's Urs is in February and attracts thousands of people.

TEMPLE OF BHUTESHVAR MAHADEV, at Aukhana in Gird-Gwalior, is the scene of a fair held at Shivratri when people gather there in large numbers.

TEMPLE OF KALI MAI in the village of Basaiya, Morena tehsil, has a special fair at Shivratri. On the seventh day of each month many people come to have darshan of the goddess. The offerings total about Rs. 8,000.

TEMPLE OF KALKA DEVI at Bhageli in Lahar pargana has a fair on Navratri.

TEMPLE OF KAROLIWALI MATA AND KUNWAR MAHARAJA at Handpur, Gird district, has a fair every Monday. Special arrangements are made at Shivratri.

NAGRA DEV TEMPLE, in Dimni, Ambah tehsil, has a fair in the month of Phalgun when the income derived from the offerings is collected by the Aukaf Department. The income is about Rs. 25,000.

JAI TEMPLE, Shivpuri, has a fair on Gyaras after Janmashtami (August).

BUN KUNDESHVAR MAHADEV TEMPLE in Bhind district is visited by about 2,000 people during the Shivratri fair. The annual offerings are about Rs. 150.

MAHAKALESHVAR TEMPLE, Ujjain, has been mentioned in the Puranas as being most sacred to Shiva. It contains one of the 12 Jyotir Lingas. A fair is held at Shivratri, but throughout the year the temple is visited by thousands of pilgrims, whose numbers run into lakhs on a single day during the Singhast Mela.

CHAUBIS KHAMBA DEVI TEMPLE, Ujjain, takes its name from the number of pillars which support the present structure. It is believed to be part of an eleventh century building and by a curious development in belief, the images of the dwarapalas, or doorkeepers, carved on the doorjambs, are now worshipped as goddesses.

SIPRA RIVER in its course through Ujjain has many sacred places on its banks on account of the sanctity of its waters. Fairs are held during the months of Kartik and Vaishak and the famous Singhast Mela every twelfth year.

SHIVPURI'S SHRI BAN GANGA is the place for many chatris of the Scindia family, and a fair is held annually.

SHRI RAMESHVAR MAHADEV TEMPLE, on the banks of the Seep Chambal in Sheopur, is a sacred place with an annual fair.

SIDDHI MATA TEMPLE in Kotwal village, Morena tehsil, has special popularity because worship of the deity in this temple is supposed to cause diseases to disappear. A fair is held in the month of Chaitra when about 2,000 people assemble.

BALAJI TEMPLE in Bantri village, Lahar tehsil, is the scene of a fair each Sunday, and on Rang Panchami when about 6,000 people assemble.

KAL BHAIRAV TEMPLE, in Ujjain, Bhairongarh, is visited by pilgrims three times a year.

POPULATION

THE first Imperial Census of the British Empire was taken in 1872 and the first systematic attempt to enumerate the population of the States in Central India was made in 1881. At that date the population of Gwalior was enumerated as 29,93,652. Since then five more enumerations have been made, the last Census being on February 26, 1931.

The territory under the State Census operations comprises 11 districts (zilas), sub-divided into 39 parganas, or tehsils, with an area of 26,397 square miles. According to the 1931 Census the population of the State was 35,23,070 of whom 18,67,031 were males and 16,56,039 females. This is the highest population ever recorded in the State and shows a growth of 10.3 per cent over the 1921 Census.

Average density over the whole State is 134 people per square mile as compared with 119.55 in 1881, 117.13 in 1901, and 121 in 1921. Bhind heads the list for density of population with 243 people to the square mile, while Sheopur is the most sparsely populated with 58 people to the square mile.

The districts of Bhind, Morena and Shivpuri have larger populations than they can support. Some of this surplus is nowadays being absorbed by colonisation and irrigation schemes, but in past years a large number of people have migrated to the Punjab and other places. In 1931 a loss of 15,134 people to the State was recorded, as compared with a gain of 3,701 in 1921. It must be remembered, however, that since 1931 famine conditions have prevailed on several occasions in Rajputana and Central India and that as a result there have been large numbers of immigrants to Gwalior. The section dealing with Colonisation gives details of the Marathas and Gujaratis who have migrated to the Gwalior colonies in the past few years.

In the State there are 10,852 villages. These villages have an average population of 288 people, as against 275 in 1921. The maximum average is 457 in Bhind and the lowest 205 in Sheopur.

Religions

Census details of religion show that Gwalior is mainly populated by Hindus. They are in fact in the vast majority as the following statement shows:

Hindus	32,55,977 (excluding Aryas and Hinduised Tribes).
Musalmans	2,04,297 (1,09,412 males and 94,885 females).
Jains	45,079 (24,238 males and 20,841 females).
Christians	1,198 (592 males and 606 females).
Others	16,519 (including Sikhs, Parsis, etc.).

Statistics of civil conditions show that early marriage was prevalent among the masses. In 1931 the number of married boys and girls below five years of age was 2,715 and 5,687 respectively. Since 1932, however, the Gwalior Child Marriages Restraint Act has been in force and under it girls cannot marry below the age of 12 and boys under 16 years. That this Act was necessary was shown in 1931 when the number of widowed boys and girls below five years of age was 370 and 901, and below 15 years 3,442 and 6,420, respectively. There were 99 widows below one year.

In 1931 there were 1,41,342 literates—a little more than four per cent. Literates among males numbered 67 per thousand while among females the figure was only about nine per thousand—or about one per cent. The next census is, however, likely to show a very considerable difference here, since by 1941 the effect of the State's new schools and general education drive will have taken effect.

Languages

Hindi, Urdu and Marathi are the chief written languages of the State. During the past 40 years Hindi has supplanted Urdu as the language most in use in State Departments, but a good deal of official work, especially in the Finance Department, is conducted in Marathi. Of the dialects spoken Malwi is in use throughout the whole of Malwa, except in Sardarpur, and is the most popular dialect of the southern part of the State. Western Hindi is the most spoken language in other parts of the State and is understood from one end of Gwalior to the other. The number of people speaking Western Hindi —as distinct from Eastern Hindi—was 22,98,274 in 1931.

The list of occupations returned in the census show that the vast majority of the State people are dependent on agriculture for their living. Of the 19,21,997 people following an occupation in the State, 13,65,306 were engaged in agriculture or pasture, and only 1,56,830 were in industry. Other occupations included dealing in foodstuffs, service, law, medicine, domestic service, etc.

Gwalior's public health is on the whole fair. The most striking point about health statistics is the large number of deaths ascribed to fever. More than 20 per cent of the total mortality is returned under this head. Outbreaks of small-pox and cholera have occurred in certain districts from time to time, but the mortality from these causes is not high.

Of the 46 towns in the State Lashkar is easily the largest. It is the present capital and has for that reason been treated as a city since the 1901 Census. The population of the city is 86,767 which represents an increase of 7.9 per cent in the decade 1921-31. In recent years important developments and improvements have taken place in Lashkar and the population is increasing rapidly.

PUBLIC INSTITUTIONS

AS a rough and ready guide, public institutions are often invaluable in indicating the social consciousness of the people among whom they are found. Though one cannot claim them to be complete proof of the public's enlightenment, the existence of non-official bodies devoted to nation-building activities of one form or another shows that the will to progress is present and that steps are being taken to implement it. A glance at Gwalior's list of public institutions shows that the Durbar's efforts to improve the lot of the people in the State are being ably seconded by thriving public institutions which devote their resources to religious, social and educational movements. Some of them have been long established, others are comparative newcomers, but the sum total of their work shows a great deal of highly practical progress.

In this chapter it has only been possible to pick out a few of the representative institutions of the State in order to show the trend of social work now being done in Gwalior. Space permits us to review the activities of such bodies only in the barest outline, and the omission of any institution from the list does not mean that the work done by it is in any respect unimportant. It has to be remembered that there are a number of institutions which never come into the limelight, but continue to further their aims and produce the results they desire. The following public institutions have their headquarters at Lashkar.

MAHARASHTRA KSHATRIYA HITCHINTAK SABHA

The Marathas are of the same community as the Ruling Family and occupy an important place in Gwalior. Maharaja Madhav Rao was anxious that education should be spread and social evils eradicated from this society, and it was at his instance that this Sabha was founded. Its work among the Marathas has been mainly educational. It runs the Maratha Boarding House in Lashkar, awards scholarships to Maratha students and works hard to introduce reforms into the community. The Sabha has been in existence for over 30 years and is in a sound financial position. The most prominent Marathas in the State are interested in its working.

JAYANTI MAHOTSAV MANDAL

The anniversaries of such heroes of the past as Shivaji and Mahadji Scindia are celebrated by this Mandal. Processions are organised and

the public is invited to take part in the celebrations. Among its members and sympathisers the Mandal can count some of the most influential figures in Gwalior.

SHREE JIJA MAHARAJ BALRAKSHAK SABHA

Maternity homes and child welfare centres are the special work of this body which has achieved splendid results. Health exhibitions and baby weeks are among its methods of popularising maternal and juvenile welfare among the general public. Its work is mainly carried on under the supervision and guidance of the State Medical Department.

ZAMINDAR HITKARINI SABHA

Zamindars and cultivators were regarded by Maharaja Madhav Rao as the most vital section of the public in Gwalior. This Sabha was founded in 1914 and given a grant of Rs. 12,000 a year—a sum which was subsequently doubled. Updeshaks, or preachers, are sent round the districts to educate zamindars and cultivators in improved methods of cultivation, the utility of panchayat boards, irrigation works, co-operative societies, etc. Branches of the Sabha have been established at all important district towns, and the body has done good work.

RAJPUT HITKARINI SABHA

The Rajputs form an important percentage of the population of Gwalior and this Sabha was established in 1906 to look after the education and welfare of this class. Maharaja Madhav Rao, who was greatly interested in Rajput welfare, was President of this body for some time. Education and social reform among the Rajputs in the State are the main aims of the Sabha which has achieved noteworthy results.

MAHARASHTRA BRAHMIN SABHA

The welfare of Deccani Brahmins is the aim of this Sabha and under its auspices the Shikshan Sahayak Mandal runs night classes in which general education as well as industrial and technical education is provided.

There are a number of other communal institutions which confine their activities to different sections or sub-sections of their communities. They include the Kayastha Sabha, Vaishya Sabha, Jain Young Men's Association, Sanadhya Sabha, Kanyakubja Sabha, etc. Many of these institutions do really useful work and justify their existence, others mark time waiting for capable and enthusiastic workers.

ORPHANAGES

The Madhav Orphanage and the Anathashram, Morar, are two institutions for orphans. The former was founded at the instance of Maharaja Madhav Rao, and the Ruling Family take an interest in its progress. Orphans are kept, fed, and educated under the supervision of paid managers.

The Anathashram is of more recent origin and besides providing asylum for orphans it shelters destitute widows. Both the institutions are supported by the public.

HITCHINTAK SANSTHA

Working for the general uplift of the masses, this institution was founded in 1931 and is run by a group enthusiastic young men. It publishes "Hitchintak," a monthly magazine in Marathi, which deals with social economic and educational problems. The Sanstha also organise the Vasant Vyakhyana Mala—a series of lectures in Hindi—and runs a free reading room and a small library of choice books.

MAHA RUDRA MANDAL

This body organises Olympic sports tournaments each year—a form of athletic activity which is growing in popularity.

SHARAD VYAKHYAN MALA

The autumn is the time for this well-established series of lectures, when distinguished scholars are invited to Lashkar to deliver addresses in Marathi.

RAMDAS TARUNA SANGHA VYAYAM SHALA, JIWAJI VYAYAM SHALA and SAMBHAJI VYAYAM SHALA are the chief gymnasiums open to the public and have shown considerable growth in popularity—especially since physical culture has been allied to education and social welfare.

BHARATI VIHAR, ABHINAV SANGIT MANDAL, YESHWANT CLUB, MAHARASHTRA MANDAL and SWASTHYA SAHAYAK MANDAL are institutions interested in constructive social work. Some of them from time to time stage dramas to assist local institutions doing social service. These bodies are run by groups of enthusiastic young men in Gwalior with excellent results.

K. D. V. SABHA

The Kanya Dharma Vardhini Sabha has played a great part in the spread of female education in the State. One of the first of Gwalior's modern public institutions, the Sabha was founded late in 1898 by Maharaja Madhav Rao, and it soon gathered enough funds to carry on an extensive campaign for the spread of education among women in the State. Since there was a dearth of suitable text-books, written in the languages in use in the State, the Sabha published a number of books, suitable for girls and written by distinguished authors. Branches of the Sabha have long been in existence in almost every important town in the State, and this institution has also established a number of girls' schools and a widows' training class. These were later taken over by the Education Department, and female education standardised by instituting two examinations which are now managed by the Department.

The Sabha organises each year exhibitions of embroidery, needlework and other works of art executed by women and prizes are awarded. In order to encourage education among adult purdanashin women the Sabha has sponsored a Home Female Education Scheme at Lashkar.

Girls are encouraged to take up seriously academic studies by the award of prizes to those successful in various public examinations. Donations are also made when these girls marry. According to a fixed scale, Rs. 30 is donated for the marriage of a girl who has passed the Prathmic Examination and Rs. 50 is given at the marriage of a Matriculate girl.

A Women's Industrial Association, which works under the supervision of the headmistress of the Maharaj Kumari Girls' School, receives liberal aid from the Sabha. Some years ago the Sabha built a Girls' Boarding House and also decided to donate Rs. 5,000 towards building a memorial to the late Rai Bahadur Pt. Pran Nath, Sabha Bhushan, to whom the progress of female education in the State has been largely due. The Sabha also publishes a quarterly magazine, " Mahila," which is devoted to topics concerning women.

MAHILA MANDAL

Soon after the third session of the All-India Women's Conference the Mahila Mandal was established at Lashkar as a branch of the All-India body. In common with the parent institution, it aims at the spread of education and its reform and the general uplift of women. Feminine leaders from all castes and creeds support the Mandal and its activities are manifold.

Each year delegates are sent to the All-India Conference and the Mandal tries to follow the programme of activities laid down by the Conference. Weekly meetings are held in rotation at one of the five centres in Lashkar, Gwalior and Morar. Exhibitions of needlework, embroidery and other work executed by women are organised, and a sewing class is conducted. A scheme for providing home education for adult women is also sponsored by the Mandal.

Special meetings are convened to consider questions of All-India importance and efforts are made to explain to the masses the significance of the issues involved. The Mahila Mandal is a body with progressive views and an ever increasing field of activity.

HINDI SAHITYA SABHA

This Sabha which was established in 1902 aims at popularising Hindi language and literature and conducts a variety of literary activities. It can claim some very real success in its work as it was mainly through the efforts of this body that Devanagari script was adopted in the State's courts and government offices. The Sabha has also maintained a circulating library and free reading room since 1913.

It also conducts certain Hindi examinations of the Hindi University of Allahabad and occasional literary conferences are held.

MATRABHUMI KARYALAYA

This body was founded in 1930 and is devoted to the service of Marathi literature. It issues a hand written monthly magazine in Marathi, maintains a library and conducts research based on material collected by its members. It has a collection of old manuscripts and coins.

BAZME URDU

This is a similar body devoted to Urdu literature. Learned discussions on literary, social and similar topics take place and meetings are generally well attended.

SANATAN DHARMA MANDAL

The Mandal is the organisation of Sanatanist Hindus in the State and has its own building near the Gwalior Young Men's Club. It undertakes the publication of religious booklets.

ANJUMAN ISLAM

The Anjuman, which was established in 1902, is the representative body of the Muhammedans in the State. Its activities include the preservation and care of Muslim places of worship, protection of the interests of the community, propaganda for mutual co-operation, spread of education, etc., and to preach loyalty to the Gwalior State and to the British. Headquarters are in Gwalior and the annual gathering takes place there. This institution was instrumental in getting the Gwalior Jama Musjid repaired at a cost of about Rs. 15,000 of which Rs. 10,000 was donated by the Durbar. The Anjuman, which has done much to eradicate social evils from the Muslim community, sent a representative to the Majlis-i-Am prior to the 1939 Reforms.

ARYA SAMAJ

One of the oldest institutions in the State, the Arya Samaj was founded in 1882, and though now a socio-religious body, its main work has been the spread of Vedic culture and the propagation of Vedic ideals. It aims at the eradication of social evils which have crept into Hindu society—such as untouchability and early marriages. The Arya Samaj has branches in Lashkar, Gwalior and Morar, and runs, among other institutions, schools for depressed classes, a night school, a widows' home, a free reading room and an akhada. Annual gatherings are celebrated on a large scale when distinguished speakers and scholars are invited from outside the State.

SOCIAL CLUBS

ELGIN CLUB, LASHKAR

Regarded as one of the most select and well-equipped social clubs in India, the Elgin Club's membership is open to all the high officers of the State and members of the aristocracy. It is housed in a palatial building set in a garden of outstanding beauty. Every modern facility for recreation and outdoor exercise is offered on the premises of the Club. There are a swimming pool, tennis and badminton courts, a billiard room and spacious halls for social activities. Membership of this Club entitles the member to enjoy the privileges of the social club at Shivpuri where facilities for rowing and yachting are also available. Despite the high standard of facilities which the Club provides, the entrance fee is only Rs. 54 and the subscription Rs. 9 a month.

There are social clubs at the headquarters of almost every district and on a small scale they afford all the social amenities which a small town can provide.

G. Y. M. C.

The Gwalior Young Men's Club was originally started with the object of providing recreation and opportunities of social intercourse for middle class people in the capital. Since its inception the institution has received generous donations from the State and also from private individuals. The Club has its own buildings, tennis courts and playing fields. An outstanding event of the Gwalior sporting year is the open tennis tournament run by this Club—a tournament which attracts the best tennis players in Gwalior. The Club has a membership of over 100 and includes among its patrons H.H. the Maharaja Scindia, H.H. the Raja of Sangli and a number of leading Sardars.

GWALIOR SPORTS ASSOCIATION

A long list of Indian and foreign sports and exercises is covered by the activities of the Gwalior Sports Association which was established in 1923. Its ancestor was the Gwalior Sports Club the activities of which were open only to members. The Club was converted into the present Association in order to promote the cause of sports and sportsmanship and to make provision as far as practicable for all kinds of Indian and foreign games and exercises among the subjects of the State. The Association was also designed to arrange for competitions in such sports as :

Polo	Billiards
Golf	Rifle Shooting
Cricket	Revolver Shooting
Hockey	Tent Pegging
Football	Paper Chases
Clay Pigeon Shooting	Chess
Lawn Tennis	Olympic Sports
Covered Tennis	Indian Games

The Association was started under the patronage of Maharaja Madhav Rao and functioned successfully from its inception. Various competitions take place throughout the year. Some of these are open to all teams and clubs in India, while others are restricted to local teams and individuals and the members of the Association.

One of the tournaments run by the Gwalior Sports Association is the Scindia Gold Cup Hockey Tournament—a very popular hockey competition throughout the country and one carrying with it a great reputation.

The fountain head of most public sporting activities in the State, the Gwalior Sports Association can also claim to be the patron of hockey as an All-India game. In 1924 a meeting of the representatives of the Provinces was held under the presidentship of Colonel C. E. Luard, the then President of the Gwalior Sports Association. At this meeting it was agreed that a central hockey association be started. The decision was implemented the following year at a meeting under the presidentship of Colonel K. N. Haksar when it was decided that the new association be called the Indian Hockey Federation with headquarters temporarily at Gwalior.

BOY SCOUT MOVEMENT

Scouting has flourished in the State ever since the beginning of the Gwalior Boy Scouts Association in 1925. Today there are more than 80 troops in Gwalior with over 3,400 Scouts. The Organising Scout Commissioner, who is Secretary of the Association, is responsible for the conduct of the movement and acts as a link between the different cub packs, scout troops and rover crews of the State and the executive body of the Association. The entire work of the Association is controlled and financed by the Education Department and schools are encouraged to form their own packs, troops and crews.

The State Scout Commissioner holds training classes for scouters whenever and wherever necessary. He is assisted by two assistants who have their headquarters at Lashkar and Ujjain. The Movement is now to be found in all Districts of the State, and several groups have the advantage of having technical experts as members of their troop committees. They help scouts and cubs in securing merit badges. Parents' committees and local associations have been formed at a number of places and are doing very useful work.

Camps, hikes and rallies are held every year by the troops for training, education and service, and Scouts are much in demand for the valuable work which they do at melas and festivals. Some were even sent to the Kumbh Mela at Hardwar in 1938 where they met the urgent need for signallers.

The Girl Guide Movement has also made a modest start in the State and is running successfully.

SHRAMJIVI HITKARINI SANSTHA

The object of the Shramjivi Hitkarini Sanstha is to look after the welfare of the employees of the Jayajirao Cotton Mills Ltd. It was founded by Mr. G. D. Birla, the well-known commercial magnate. The Sanstha is composed of 10 representatives of the employees and two of the mill authorities. It runs several schools for children as well as for men and women and it possesses a library, a hospital, a maternity home, gymnasiums, rest-houses and a labourers' bank. A malaria expert was called in to carry on a campaign to stamp out malaria from the mill premises. The Sanstha also works for the uplift of labourers by campaigning against social evils.

In these pages we have only been able to examine a rough outline of the social and recreational services rendered by the public bodies of the State, but it is clear that Gwalior has not lagged behind in social work. A marked feature of these institutions is the very firm foundation on which the majority of them are based. This is due to a considerable extent to the policy of Maharaja Madhav Rao during whose regime the majority of them came into existence. Though willing to encourage any activity which was designed for the betterment of his people he eschewed feverish haste and only well-thought out schemes met with his approval. It must also be remembered that there is complete absence of discord between the various institutions and communities. The communal virus which has poisoned public life in so many parts of the country has not been able to spread in the State.

ARCHEOLOGY

GWALIOR'S territories are rich in archeological remains which cover a period exceeding 2,000 years. Some of these monuments, magnificent structures like the Man Singh Palace on Gwalior Fort, are among the finest historic buildings in India; others, which may throw much light on the early story of Central India, are whole city sites which lie buried below many feet of earth.

Attempts to record these remains began at least 70 years ago and conservation of a rather scattered kind started in the early eighties of last century. However, it was in 1913 that Maharaja Madhav Rao did a distinct service to Indian archeology by instituting a regular department to explore and preserve these precious relics of ancient art, architecture and culture in his State. The new department was put in charge of an officer, Mr. M. B. Garde, who had completed his archeological training under Sir John Marshall, one of the greatest Directors-General of Archeology, India has had.

Mr. Garde, who today is designated Director of Archeology, has been in charge of this work in the State ever since 1913. The outline of policy for the department, as laid down by the late Ruler, included three objects: exploration, preservation and education. By education is meant the creation of public interest in these ancient relics through the Museum, publications and other activities.

The main task of the department during the first six years of its existence was to compile a complete and accurate list of monuments. Every important monument was visited and notes were made of its history, the legends connected with it, its architectural and artistic features, its inscriptions if any, its condition and the measures necessary for its preservation. Information was also collected about local cults, place-names, coins and other minor antiquities; in fact everything that was likely to throw light on the ancient history of the State.

Photographs and drawings were made and mechanical estampages were prepared of all available inscriptions for permanent record. As a result of this detailed exploration a number of ancient sites, buildings, sculptures and inscriptions, hitherto unknown, were discovered and new light shed on many a monument regarding which the information already available was either inaccurate or incomplete.

Ancient Cities

Gwalior territories include important ancient sites such as Ujjayini (near modern Ujjain), Vidisa (Besnagar near modern Bhilsa), Kantipuri (modern Kotwal), Padmavati (modern Pawaya), Tumbavana (modern Tumain) and Dasapura (modern Mandsaur), which when properly excavated are likely to throw a flood of light on ancient history.

Of these Ujjayini is the most important. It is mentioned in the religious books and literature of the Buddhists, the Jains and the Hindus. It is associated with the names of popular heroes like Udayana and Vikramaditya of hoary legend. It was a famous seat of religion, learning, commerce and culture long before the beginning of the Christian era. It was the capital of the western provinces of the Mauryan and the Gupta Empires. Shri Krishna is believed to have had his early education at Ujjain. This is an extensive site which requires much labour and liberal funds for systematic exploration.

Vidisa is also frequently mentioned in Hindu, Buddhist and Jain literature. It was the provincial capital of Agnimitra, a Sunga prince who has been immortalised by Kalidasa; the great Sanskrit poet, in his drama, " Malvikagnimitra." The site is marked by mounds and other vestiges of ancient habitation. It was tapped some years ago, but requires excavation on a large scale.

Padmavati and Kantipuri were the capitals of Naga kings who flourished in the 3rd and 4th centuries A.D. Padmavati is mentioned in the Vishnu Purana and a vivid description of the city is given by Bhavabhuti in his famous play " Malti Madhav " the scene of which is laid in this city. The place also appears to have been famous for a university which attracted students from far off lands. Coins, brick foundations and other relics going back to the early centuries of the Christian era have been traced here.

Tumbavana is mentioned in Buddhist literature as a stage on the old road from Sravasti to Pratishthana, and is also referred to in some of the votive inscriptions on the railing of the Great Stupa at Sanchi. A Gupta inscription mentioning the ancient name of the place, some rock cut cells and remains of structural monuments and sculptures of the Gupta and medieval periods have been found here.

Devagiri, mentioned in the " Meghaduta " of Kalidasa, has been identified with Deva Dungari, a small hill in Ujjain district.

Buddhist Relics

Buddhist remains have survived at Besnagar, Gyaraspur, Rajpur, Khejaria Bhop, Ujjain and Bagh. The city of Besnagar (Vidisa) was a well-known Buddhist centre with which the penance grove at Sanchi with its stupas and viharas (3rd century B.C. to 10th century A.D.) was connected. Today the city site is in Gwalior State while the penance grove is included in the adjoining territory of Bhopal State, the two being divided by the Betwa River.

Remnants of Buddhist stupas exist at Bigan and Gyaraspur (Bhilsa district), Rajpur (Shivpuri district), while at Khejaria Bhop (Mandsaur district) the inner face of a crescent shaped hill is carved into a series of monastic dwellings with a dagoba (8th or 9th century A.D.) in the middle. During recent excavations near Ujjain the ruins of a huge stupa, perhaps the biggest known so far, were unearthed.

Bagh Frescoes

Bagh, in Sardarpur district, possesses a series of big viharas or monasteries hewn out of rock and adorned with sculptures and paintings of a time (5th to 7th century A.D.) when Indian art had reached its zenith. The Bagh frescoes, like the sister paintings at Ajanta, are among the most precious of India's art treasures and have earned a world-wide reputation.

A wide variety of subjects are delineated, including the Buddha, Bodhisatvas, religious discourses, scenes from palaces and gardens, processions on horses and elephants. There are also decorative friezes of plants, flowers, birds and animals. "No-one who studies these paintings can fail to marvel at the grandeur of conception underlying them, the rhythm of their composition the stately pose of their figures and the wealth of imagery in their decorative motifs." The school which they represent was the source from which half the art of Asia drew its inspiration.

When they were complete the mural paintings in the Bagh caves must have presented a magnificent panorama. They are now very mutilated and faded, but even in this fragmentary condition they amply testify to the high standard the painter's art had reached in the India of those days.

In spite of all the precautions taken to preserve them for posterity, the paintings are fading away slowly but surely. Copies of the most important of these paintings have been made by competent Indian artists and are preserved in the Archeological Museum in the Gujri Mahal of Gwalior Fort. Infinite pains have been taken to make these copies faithful to the originals in every detail of line and colour. They have been reproduced in the monograph on Bagh caves jointly published by the Gwalior Archeological Department and the India Society, London.

In 1938 M. Sarkis Katchadurian, a talented Armenian artist, made reconstructed copies of many of the wall paintings at Bagh, some of which he himself discovered. These copies, though they do not faithfully represent the tones of the colours as they have survived at the present day, and perhaps also some of the line work of the originals, do convey an approximate idea of how the paintings must have looked when they were fresh and bright. The copies are being acquired by the Gwalior Archeological Department for exhibition in their Museum.

Bagh caves are 94 miles by metalled road from the nearest railway station, Mhow. There is a small rest house near the caves at the end of the road. But for shelter at night the visitor has to return five miles to the dak bungalow near Bagh town.

Hindu and Jain Relics

The earliest Hindu monument in the State is a Garuda pillar at Besnagar which bears an interesting Vaishnava inscription and was set up by Heliodoros, a Greek who called himself a Bhagavata and thus appears to have embraced Hinduism.

Brahmanical and Jain caves excavated in Udaygiri Hill five miles west of Bhilsa railway station, possess some fine sculptures and inscriptions dating from the Gupta period (400 to 600 A.D.).

The colossal image of Varaha is perhaps the largest and best known of its kind in India. At Sondni near Mandsaur lie two huge monoliths bearing Sanskrit inscriptions which recite the glory of King Yasodharman, who expelled the Huns from Central India towards the middle of the 6th century A.D.

Hindu temples (600 to 1400 A.D.) exist at Gwalior, at Suhania and Padhavali (Morena district), at Kherat (Bhind district), at Surwaya and Terahi (Shivpuri district), at Kadwaha (Guna district), at Badoh, Udaypur, Gyaraspur, and Kakpur (Bhilsa district) and at Khor and Makanganj (Mandsaur district). Perhaps the finest and best preserved of these, the Udayeshvar temple at Udaypur, was built by Udayaditya, a Paramar ruler of Malwa (11th century). The temple is a fine example of the Aryavarta or Indo-Aryan style of architecture in its fully developed stage. The pink sandstone employed in the building shows its grandeur to excellent effect. The spire, doubtless the most fascinating feature of this monument, is perhaps unrivalled in beauty in the whole array of Indian temples. As every part of this temple is carved with great delicacy, and as the whole is in a fairly perfect condition even at the present day, there are few examples of its class which give a better idea of the style of medieval temple architecture in Northern India.

Hindu monasteries (9th and 10th centuries), rare specimens of massive stone architecture, exist at Surwaya, Ranod, Terahi and Kadwaha. Terahi and Gyaraspur possess two very fine torana gateways. Raja Man Singh's palace and the Gujri Mahal (15th century) in Gwalior Fort are very fine examples of Rajput civil architecture. Rajput palaces of later periods exist at Ater, Gohad, Narwar, Kashipur, Sheopur and Chanderi.

The Jain monuments in the State are no less numerous or interesting although none of them goes back beyond the 9th or 10th century. The rock-cut Jain statues (15th century) on the Fort rock at Gwalior are well-known. Similar rock-cut figures, but smaller in size and number are cut in Khandar hill at Chanderi. Other centres of Jain remains which include temples and sculptures, are Padhavli and Suhania (Morena District), Barai and Panihar (Gird district), Narwar, Sesai and Bhimpur (Shivpuri district), Dubkund (Sheopur district), Indor, Pachria, Golakot, Budhi Chanderi, Thoban and Tumain (Guna district), Gyaraspur and Badoh (Bhilsa district), Gandhaval and Maksi (Ujjain district), and Nimthur (Mandsaur district).

Sati and Memorial Stones

A large number of inscribed sati stones and memorial pillars, commemorating widows who burnt themselves on the funeral pyres of their husbands, or warriors who were killed on the battlefield, are met with in all parts of the State. As many of the inscriptions are dated and mention the name of the ruling king, the old name of the village and the district or division of which the village formed part, they are very useful for the reconstruction of history in general, and in particular for determining the antiquity of the villages in which they stand and the boundaries of the different states in medieval India.

The sculpture on the memorial pillar of a warrior killed in battle generally consists of a scene of the fight and of his ascent to heaven after death. In heaven he is represented either as seated on a pedestal or as reclining on a couch and being served by celestial nymphs. Finally there is his deification where he is shown in the form of a bust with a crown of matted hair, holding a rosary in one hand and a citron in the other. These scenes are depicted in panels arranged one above the other on the pillar in the order given. Some of the memorial pillars have an additional panel representing a row of cows and a man reclining on a bed. According to an inscription on one of these pillars, the scene implies that the man commemorated lost his life in a cattle lifting raid.

On a sati stone the husband and wife are represented as either standing side by side holding each other by the hand, or seated and worshipping a linga. The sun, the moon, a cluster of stars and a hand pointing upwards are depicted in the background as though to convey the idea that the fame of the sati shall endure as long as the sun, moon and stars.

The institution of sati appears to have been an old one. It prevailed on a widespread scale and among all castes, especially in Rajputana and Central India where indeed there is hardly a village which does not possess a sati stone. The oldest memorial pillar (6th century A.D.) is one found at Hasalpur (Sheopur district). It is now in the Archeological Museum, Gwalior Fort, along with a number of other memorial stones. Another interesting memorial pillar is at Terahi. The inscription on this pillar commemorates the death of a warrior in a battle with the Karnatas and probably refers to the war between Harsha of Kanauj and Pulakesin II, the Chalukya of the Deccan (7th century A.D.) Memorial pillars of the 9th and 10th centuries are found at Terahi, Sakarra and Gadhi Barod (Shivpuri district) and at Badoh (Bhilsa district) Sati stones ranging in date from the 11th century onwards are found in places too numerous to mention.

Muslim Architecture

Good specimens of Muslim architecture are found at Ujjain, Chanderi, Bhonrasa, Udaypur and Gwalior. The picturesque water palace known as Kaliadeh is pleasantly situated on an island in the Sipra River at Ujjain. The Koshak Mahal, a noble, four-storeyed edifice at Fatehabad, and the Jama

Masjid, Shahzadi-ka-Roza and Battisi Baodi at Chanderi, are other notable specimens of Pathan architecture in the Mandu style (15th century A.D.). The mausoleum of Muhammed Ghaus at Gwalior is a very fine tomb of the early Moghul period (16th century) and shows a variety of designs of pierced stonework of great elegance. This fine stonework is also in evidence on a number of tombs at Chanderi.

The State possesses three great hill forts at Gwalior, Narwar and Chanderi, besides a number of other forts, large and small, some of which are of archeological interest. Perhaps the most interesting of these forts are Ater, Sheopur and Bajrangarh.

INSCRIPTIONS

The State possesses a large number of epigraphical records mostly engraved on stone. Most of these have been mechanically copied by the Archeological Department and the impressions have been preserved, classified and labelled. The original stones bearing the inscriptions, such as had been displaced from their settings and were lying uncared for, have been collected and put on exhibition with short descriptive labels in the Archeological Museum at Gwalior. All the epigraphical records have been deciphered. Some of them have been published, and the publication of the rest will engage the attention of the Department in the near future.

The inscriptions are executed in various scripts and languages, range in date over the past 2,000 years, and refer to numerous kings of over a score of different ruling dynasties. The more important inscriptions comprise the Besnagar inscription of Heliodoros (circa 150 B.C.), the Besnagar inscription of Gautamiputra of about the same date, the Udaygiri inscriptions of the time of Chandragupta II and Kumaragupta I (401—425 A.D.), the Mandsaur inscriptions of Naravarman (404 A.D.), of Kumaragupta and Bandhuvarman (437 and 472 A.D.), of Govindagupta and Prabhakara (467-468 A.D.), of Yasodharman-Vishnuvardhana (542 A.D.) and the Tumain inscription of Kumaragupta and Ghatotkachagupta (435 A.D.)

Then there are the Bagh copper plate of Subandhu, king of Mahishmati (circa 500 A.D.), the Gwalior inscription of Mihirakula (circa 525 A.D.), the Sondni pillar inscription of Yasodharman (circa 535 A.D.), the Hasalpur inscription of Nagavarman (circa 550 A.D.), the Terahi memorial pillar inscription of a warrior who fell in battle with the Karnatas (circa 625 A.D.), the Mahua Mahadeva temple inscription of Shri Vatsaraja (circa 650 A.D.), the Gwalior Chaturbhuja temple and Sagartal inscriptions of Bhojadeva of Kanauj (875-76 A.D.), the Terahi inscription of Gunaraja and Undabhata (903 A.D.), the Ranod inscription and another inscription from an unknown find spot referring to a long line of Saiva ascetics who built temples and monasteries (9th and 10th centuries).

The inscriptions of three different lines of the Kachhapaghatas have been found at Gwalior, Suhania, Tilori, Naresar, Dubkund, and Narwar (11th and 12th centuries). There are also the Jeeran inscriptions of the Guhilas and Chahamanas (11th century), the Kuretha copper plate of the Pratiharas of Gwalior (13th century), the stone and copper plate inscriptions of the Paramars of Malwa found at Udaypur, Ujjain, Bhilsa, Karnawad, Balipur and Ghusai (11th and 12th centuries), the Udaypur and Ujjain inscriptions of the Chalukyas of Anahilapataka (12th century), and the Chanderi inscriptions of another branch of Pratiharas (circa 13th century).

Numerous records of the Jajapellas of Narwar have been found at more than a dozen places, chiefly in the Shivpuri and Guna districts, and at Udaypur (13th century). The inscriptions of the Tomars of Gwalior occur at Gwalior, Barai, Padhavli, Suhania, and Narwar (15th century).

Besides these there are a few inscriptions referring to Kakkuka, Hammiradeva, Trailokyavarman, Chamundaraja, Avantivarman and several other rulers about whom information is not at present complete.

There are a few Hindi inscriptions which refer to Muhammedan kings, sultans and emperors. These dynasties are however better represented by Arabic and Persian inscriptions, which are no less numerous or valuable. They are found scattered all over the State and range in date from the 14th to the 18th century. The more important of these inscriptions are :

(*a*) *Early Sultans of Delhi.*—Those of Ala-ud-din Khilji, Firoz Tughlak, and Ibrahim Lodi at Chanderi ; of Muhammed-ibn-Tughlak and Islam Shah Sur at Udaypur and of Sikander Lodi and Adil Shah Sur at Narwar.

(*b*) *Sultans of Malwa* (*Mandu*).—Those of the first four sultans at Chanderi, and of one or another of these at Shivpuri, Miana, Kadwaha, Udaypur, Bhilsa, Ujjain, Mandsaur and Jawad.

(*c*) *Moghul Emperors.*—Those of the Moghul emperors of Delhi from Humayun to Muhammed Shah exist at Nurabad, Gwalior, Antri, Narwar, Dongari, Kolaras, Ranod, Chanderi, Udaypur, Bhilsa, Ujjain, Kaliadeh and Mandsaur.

Numismatics

The numismatic work of the Department consists chiefly of the examination of treasure trove coins found in the State. The work of examination has been entrusted to the Department for the past 14 years and in that period more than 30,000 coins have been dealt with. The Department has made its own collection of selected coins, partly acquired from treasure trove finds, partly purchased from coin dealers and partly received as exchanges or gifts from antiquarian institutions outside the State.

Among notable discoveries and acquisitions mention may be made of interesting punch-marked coins from Besnagar, Naga coins from Kotwal, Narwar and Pawaya, and an almost complete set of Scindia coins. Some of the Naga coins represent hitherto unknown kings such as Vrishna Naga, Pun Naga, Bhava Naga and Vasu Naga. Typical coins are exhibited in the Archeological Museum and the range covers almost all periods of Indian history from 400 B.C. to modern times.

Classified according to different types and ruling dynasties, pre-Muhammedan coins include Karshapanas or punch-marked coins, uninscribed cast coins, Indo-Greek, Indo-Parthian, Kushan, coins of the Satraps of Mathura, Western Kshatrapas, Andhras, Nagas, Guptas, Kalachuris, Haihayas, Indo-Sassanian, Tomars of Ajmer, Rathors of Kanauj, Chandellas of Bundelkhand and Kings of Vijayanagar.

The Muhammedan and later coins represent the early Sultans of Delhi, the Sultans of Gujerat, Jaunpur and Malwa, the Moghul Emperors of Delhi, the Gurkali Dynasty of Nepal, Kings of Kashmir, Ceylon, the States of Rajputana, Central India, and Kathiawar, the East India Company and the Nawabs of Oudh.

EXCAVATIONS

The necessity of conserving ancient monuments already exposed above ground has first claim on the attention of the Archeological Department. Consequently, until recently it has not been possible to undertake excavations on anything much larger than a trial scale. Now that conservation against the forces of man and nature has made fair progress in the State, the Department has taken up the additional responsibilities of exploring and conserving monuments and antiquities which may lie buried under ancient sites. Trial excavations carried out at Besnagar, Pawaya, Mandsaur, Suhania and Gyaraspur yielded interesting coins, terra-cottas, and stone sculptures. In the case of Besnagar, where digging was done during the first two years of the existence of the Department, it was found that the remains of the ancient city had either been tampered with by later generations in search of building materials, or had been washed away by floods from the two rivers in the fork of which the site is located. A brick building referable to the Mauryan age (300 B.C.), the stone railing which enclosed the Vasudeva temple with which the Garuda Pillar of Heliodoros was connected (2nd century B.C.) and the remains of a sacrificial hall (Yajnasala) of about the 5th century A.D. were unearthed. A number of ancient punch-marked coins (3rd century B.C. to 2nd century A.D.), pieces of ancient pottery, clay toys, iron implements and inscribed clay seals belonging to officials and private individuals were also discovered. They are now exhibited in the Archeological Museum.

Ancient Steel

An important discovery resulting from these excavations consisted of some metal wedges used at the bottom of the Garuda pillar. A specimen of this metal was analysed by Sir Robert Hatfield, a high authority on steel in England, and was found to be real steel, proving that India knew the process of steel making as early as the 2nd century B.C.

The excavations made at the same time on the top of Udaygiri Hill exposed the plinth of a large Gupta temple and a number of fragmentary sculptures. Small excavations were also carried out at Mandsaur, Sondni and Khilchipura which now cover the site of ancient Dasapura. These excavations were primarily intended to clear our ideas regarding some of the monuments of the 5th and 6th centuries A.D. which lie half-buried there.

The diggings near the large and imposing sculpture of Shiva in Mandsaur Fort showed that the original Gupta temple to which the sculpture evidently belonged had disappeared altogether, although the pavement which was unearthed some 16 ft. below the present ground level probably belonged to that temple. It is possible that after the sculpture had been mutilated an attempt was made in later times to erect it on a new pedestal.

The excavations round the famous pillars of Yasodharman at Sondni revealed the original foundations of the two columns, showing that the pillars are lying near their original site. The nature of the crowning figure of the columns was up to the time of the excavations a matter of doubt. But the

discovery of a double head, with the faces looking in opposite directions, near the base of one of the columns proved beyond doubt that the crowning pieces consisted of double human figures, standing or sitting back to back. The excavations also exposed the foundations of a large brick temple of Shiva close to these columns.

Padmavati's Site

It is hoped that a detailed excavation of Pawaya, the site of ancient Padmavati, will clear some of the obscurity in which the Naga dynasty is at present veiled. Pawaya is at the confluence of the Sind and Parvati rivers, about 40 miles to the south-west of Gwalior. Naga coins and sculptures dating from the Sunga and Gupta periods (100 to 500 A.D.) are found here and the ground in the whole area is studded with brickbats. Brick walling is met with underground and the whole seems likely to be a promising site for excavation.

The spot selected for a trial excavation was a conspicuous artificial mound about half a mile to the north of the site of the city proper. On opening the mound the retaining walls of a large square platform were brought to light. Each side is 140 feet long and at present 30 feet in height. It is constructed of large bricks laid in clay mortar and rises in a number of stages, each marked by an offset. So far no approach stair or gateway has been discovered. Remnants have been found of a smaller platform (56 feet square) superimposed on the larger one. The smaller platform is decorated by a horizontal moulding at the base and ornamental vertical pilasters at regular intervals, all in brick.

It appears that the exterior of the building was further decorated with terra cotta figures and carvings, a number of which were discovered in the course of excavation. None of these, however, was found *in situ*. On the discoveries so far made, it has not been possible to decide with finality the nature of this monument. The solidity and the dimensions of the platform point to its being a stupa, but on the other hand no relics distinctively Buddhist or Jain have so far been found there. A well, sunk in the centre of the platform and carried right down to ground level, yielded no traces of any kind of relics. Moreover, the few pieces of stone sculpture that have been unearthed in the excavations are all of a Brahmanical nature.

Ujjain Excavations

A new programme of excavations was inaugurated in 1938 with experimental work at and near the ancient city of Ujjayini which is pre-eminently the most promising site the State. It is a vast site and the excavation of its concealed treasures will naturally be a long operation requiring abundant funds, patient labour, skill and experience. Excavations were carried out at Veshya Tekri and Kumhar Tekri near Undasa village, about four miles north-east of modern Ujjain, and at Gadh which is believed to be the site of the ancient city.

Veshya Tekri (its name means Dancing Girl's Hill) was until recently supposed to be the palace of a queen of the Emperor Asoka. Trial excavations have shown, however, that it is in fact a huge stupa of the Mauryan period. Not only is it the biggest stupa so far known in India, but its construction is also unusual.

The results yielded by the excavations at Kumhar Tekri (Potter's Hill) are no less interesting. Here we have come upon a cemetery which, judging by coins found just above it, cannot be later than the first or second century A.D. A number of human skeletons in various poses have been unearthed. Some of the poses seem to be almost impossible for persons who have died a natural death. They appear to have been buried some time after perishing in a sudden catastrophe. Ear-rings and necklace beads have been found in association with some of these skeletons. A few jars containing charred bones and ashes were found side by side with several skeletons. It is possible that both cremation and burial of dead bodies were in vogue during that period. The race represented by these skeletons is not known precisely at present. The skeletons are being studied in the Anthropological Laboratory at Calcutta and they may supply a missing link between the people of the Indus civilisation and the present population of the country.

In the course of trial excavations at Gadh, as the ancient city site is locally known nowadays, in addition to a number of interesting antiquities, clues have been discovered wihch will serve as guides for further excavations on a larger scale. There are clear indications that the Mauryan level is not less than 35 to 40 feet below the present ground surface, that the whole area has been badly disturbed by flood and fire, and above all by human vandalism.

In those days, it seems that houses were built mostly of timber and unbaked bricks; burnt bricks were used in particular works such as drains, etc. Earthen utensils, both large and small, were used for all domestic purposes. Granaries were made up of large earthen rings fitted one above the other by rims. Like ancient Pataliputra, the ancient city of Ujjain was probably defended on the riverside by means of a wooden palisade, some timbers of which have been uncovered in the excavations.

Among the small antiquities of interest found here, mention may be made of a number of old coins, two interesting clay seals, terracotta toys, pieces of pottery of various sizes and shapes, a solitary metal cup, some very highly polished stone objects the use of which is uncertain, and a piece of stone bearing Mauryan polish and which, one is tempted to think, is a fragment of an Asokan column which may have stood here.

CONSERVATION

More than 1200 individual ancient monuments have been listed in the State. Of these about 300 are worth repairing while about half this group are worth keeping in permanent good order. As already stated, the Department passed the first six years of its existence in exploration and cataloguing. During this period financial stringency caused by the Great War prevented the development of the other branches of archeology, but in 1920 a scheme for conserving the more important of the explored monuments was sanctioned, the budget grant of the Department was revised and the staff strengthened to meet the additional work. Since then many of the State's important archeological monuments have been repaired according to the recognised principles of conservation and are being maintained in good condition. But some years will be required to complete the programme.

The conserved monuments include groups of interesting palaces, temples, pillars, caves, monasteries, mosques, and tombs. Special mention may be made of the famous Buddhist caves at Bagh. When the Archeological Department came on the scene they were already in an advanced state of ruin, and only four of the many caves in the group were found to be capable of reclamation. They were freed from the enormous heaps of their own debris with which they had become choked in the course of centuries. Old, decayed rock pillars were replaced with new masonry pillars built to the original design, thus propping large portions of overhanging ceilings. Gaps in the walls were repaired and the surviving wall paintings were protected with wooden shutters against further damage. The conservation of these caves has been in progress for several years and is being carried out with the handsome grants which the Durbar has sanctioned for the purpose.

Other important conservation works which have been carried out include the temples at Suhania and Padhavli (Morena district), the Gujri Mahal in Gwalior Fort, the tombs of Muhammed Ghaus and Tansen at Gwalior, the 10th century temples and Hindu monastery in the Gadhi at Surwaya near Shivpuri, another Hindu monastery at Ranod, locally known as Kokhai, and the old tank connected with it; the Kacheri Mahal, Sikander Lodi's Mosque, Makaradhvaj Tal and the Roman Catholic chapel on Narwar Fort, an inscribed monolith (Jait Khamba) and the Armenian tombs at Narwar; the Koshak Mahal, the Bada Madarsa tomb, the Kati Ghati (rock cut gateway) and other monuments in and near Chanderi and the ruined Jain temples at Budhi Chanderi (Guna district); the great Gadarmal temple, the Solah Khambi hall, the Dasavatara and Jain temples at Badoh: the Udayesvar temple built by the Paramar Raja Udayaditya at Udaypur (perhaps the best old temple in the State) and other minor monuments at Udaypur; the well-known Heliodoros pillar at Besnagar; the Brahmanical and Jain caves excavated in Udaygiri Hill (near Bhilsa), the Bijaymandal Mosque, and the Gumbaz-ka-Makbara tomb, both in the town of Bhilsa; the astronomical observatory of Raja Jai Singh and the Chaubis Khamba at Ujjain; Yasodharman's pillars of victory at Sondni, the huge monolithic sculpture of Shiva and a pillar of a torana gateway in Mandsaur fort.

All conserved monuments are annually inspected and maintained in good order by doing necessary repairs and clearance after the rains. Important groups of monuments are put in charge of caretakers who are responsible for the proper upkeep of the monuments and for helping visitors to see them. Descriptive notices printed or engraved on stone are set up near each monument as a rule, as part of the conservation programme.

Popularising Archeology

In addition to the work of preservation it was considered necessary that the local public should be educated to appreciate their wonderful heritage. Steps were also taken to make the monuments of the State better known to the travelling public. In order to meet these needs the following measures were adopted :

The Archeological Museum was set up in the Gujri Mahal in Gwalior Fort.

The Archeological Department publishes illustrated reports, monographs, guide books to places of archeological interest, and picture postcards.

An Act has been passed for the preservation of ancient monuments in the State.

Approach roads have been constructed to make important monuments more easily accessible. Resthouses have been constructed in a few place for the convenience of visitors.

Caretakers have been appointed at important centres to look after conserved monuments and to show visitors round.

Notices have been put up near important monuments giving a short account of their history and architecture and warning the public against damaging or disfiguring the monument.

Sign boards have been set up on roads and at railway stations in the State to call the attention of travellers to important archeological monuments in the neighbourhood.

Views of archeological monuments are exhibited in railway carriages, waiting rooms, and dak bungalows.

Magic lantern shows are given when the occasion arises.

All the important monuments as well as sculptures and minor antiquities in the State have been photographed by the Archeological Department which now has a large stock of negatives. Lantern slides have been prepared and also prints for sale to the public at moderate prices. The Department is also preparing and recording plan drawings especially of those monuments which have been conserved.

Museum

The idea of having a Museum of Antiquities at Gwalior was conceived simultaneously with the creation of the Archeological Department. The

Museum, opened to the public early in 1922, is housed in the Gujri Mahal, a Rajput palace of the 15th century, which makes an appropriate setting for the antiquarian exhibits. The collections include excavated pottery, terra-cottas, beads, relic caskets, iron implements, coins, inscriptions, capitals of pillars, stone and metal images, railings and architectural pieces ranging in date from the 2nd century B.C. to the 17th century A.D.

The Sunga, Gupta and Medieval periods are particularly well represented and the exhibits are principally Brahmanic and Jain. The Museum is rich in Brahmanic images, which represent most of the principal gods and goddesses in the Hindu Pantheon. Some of the sculptures are beautiful examples of plastic art, and a few are such as have not been found elsewhere. Full size copies of many of the Bagh frescoes occupy one room, and another room contains a number of miniature paintings of the Moghul and Rajput schools and large photographs of important archeological monuments in the State.

Every effort is being made to develop the Museum steadily and to make it more and more useful and educative. It is now a well-known institution attracting a large number of visitors from all parts of the civilised world. It has evoked words of appreciation from many a visitor—especially from the representatives of the Empire Museums Association, who have mentioned it in their report (London Museums Association, 1936) as one of the few well-kept museums in India.

The Future

The activities of the Department in the near future will be directed to the completion of the programme of conservation and publication, to the further development of the existing Museum, to the establishment of a Museum at Ujjain, the ancient capital of Malwa, to the search of prehistoric sites in the neighbourhood of the Narbada valley, and last but not least, to the excavation and exploration of the sites of ancient cities, pre-eminently Ujjayini. Not only are the excavations of Ujjayini likely to solve the mystery of the personality of Vikrama, and the epoch that is known as the Vikrama Era (hitherto a matter of interminable controversy among antiquarians), but these excavations may also lead to the discovery of important missing links in the story of ancient India.

JAYAJI CHOWK, HUB OF LASHKAR
Showing Statue of Maharaja Jayaji Rao and Town Hall.



PLACES OF INTEREST

Abbreviations { *D. B.* *Dak Bungalow.* / *W. R.* *Waiting Room.*

AGAR. Headquarters of the tehsil of the same name and in size among the first dozen towns in the State, Agar is in Shajapur district, 41 miles by metalled road from Ujjain. It is picturesquely placed between two large lakes and surrounded by a wall dating from the 18th century. The town takes its name from Agra Bhil, its 10th century founder. He however had to give it up almost immediately afterwards to the Jhala Rajputs who possessed Agar till the 18th century when Jaswant Rao Pawar of Dhar seized it. In 1801 the district was taken over by Bapuji Scindia. Agar has a mandi (controlled market) and a considerable trade in grain and cotton with several cotton gins. There are a State maternity home and a military hospital. The town is also the site of an annual agricultural exhibition.

AMJHERA. Formerly headquarters of a district of the same name (it has recently been renamed Sardarpur district), Amjhera lies in the extreme south-west of Gwalior territory and 12 miles west of Dhar. Amjhera village is said to have been founded by Raja Ram Singh, a son of Raja Maldeo Rathor of Jodhpur, during the 16th century. During the disturbed times that followed, Raja Ram Singh's descendants were able to make Amjhera into a small chiefship which became subject to the Gwalior Durbar in the 18th century. In 1857 the 11th Rao Bhaktawar Singh revolted and the district passed to Scindia in 1858. The principal landlords of the district trace their descent from this family, and there are today 21 family estates. Amjhera has a mandi (controlled market).

ANTRI. Village with station on G. I. P. Railway. Can be reached by a feeder road which branches off the Gwalior-Jhansi road at Makoda, three miles from Antri. D. B. at Makoda. Antri is notable for its Jama Masjid and the tomb of Abul Fazal, the friend and historian of Akbar. The younger son of Shaikh Mubarak, Abul Fazal, came to the Delhi Court in 1574, and soon proved to be not only a scholar and

courtier, but equally capable of commanding an army and organising a military campaign. He was sent in command of the Moghul troops to besiege Asirgarh in 1599, and this supposedly impregnable Khandesh stronghold surrendered to him early in 1601. In 1602 Abul Fazal was in supreme command of the Deccan, but during Salim's rebellion set out with only a small retinue for Agra. He was repeatedly warned of the risk of ambush, and was eventually waylaid by a party commanded by Bir Singh, who was in the pay of Salim. Abul Fazal was killed by a spear thrust and his head cut off. Bir Singh later escaped to Gwalior territory.

ATER. A town of some commercial importance (D.B.) about 54 miles north-east of Gwalior *via* the Gwalior-Etawah road. Ater is 18 miles by metalled road north-west of Bhind, terminus of the Gwalior Light Railway. The area around Ater is known as Bhadaver after the Bhadauria clan of Rajputs who inhabit it. Ater was the capital of Bhadavar until it was conquered by the Scindias towards the end of the 18th century.

Ater Fort is perhaps the largest and most important of the structural forts in the State. As it is situated among the Chambal ravines it is of strategic importance. An inscription on the north wall of the fort shows that its name was Devagiri, and that it was begun by the Bhadauria Raja Badansingh Deoju in 1645 A.D., the work being completed by his son Mahasingh Deoju in 1668. The statues of these rulers still stand in one of the fort's rooms. The Diwan-i-Khas, a large open platform probably used as a Diwan-i-Am, and numerous apartments, some of which are adorned by jali work and plaster decoration, are in ruins. There is a seven storeyed tower (Sat Khana) in the centre of the fort.

BADOH. Small village 12 miles by road east of Kalhar station (W.R.) on Bombay-Delhi line of G. I. P. Railway. The road to Pathari (10 miles) is metalled, but the remainder is kachha. Wheeled conveyances should therefore be left at Pathari and Badoh visited by a short footpath.

Badoh was a prosperous town in medieval times as the numerous ruins of temples around a large tank at the south end of the village prove. Another fine tank and ancient buildings, now included in Pathari, once formed part of the same old town. Local tradition holds that the ancient name of the town was Badnagar, (Vatanagara), though this is not mentioned in any inscription.

THE GADARMAL TEMPLE, the largest of the temples in these ruins, is visible for a long distance owing to its enormous height. Architecturally, it belongs to two distinct periods. The basement of the shrine and the porch are remnants of the original temple of about

the 9th century A.D. The sikhara or spire is later and is made up of pieces from the ruins of a variety of Hindu and Jain temples. The principal temple is surrounded by seven shrines (all of which are ruined) and the whole stands on a large platform. The retaining walls of the platform were decorated with mouldings and niches inset with sculptures. A beautifully carved torana gateway, which stood over the projecting staircase leading to the platform, is now badly ruined. The platform is in the centre of a large enclosure entered by a gate on the north. In front of this is a large old tank.

The plan of the principal temple is unusual, the shrine being oblong instead of square, and the entrance porch without a sabha mandap. The attendant shrines housed subsidiary idols only one of which—that of the Sun God—has survived in the shrine at the north-west corner.

When the interior of the shrine room of the main temple was cleared of debris an image of a goddess carved on the dedicatory block of the door lintel, several other images of goddesses and a fine, large sculpture of a mother goddess and a divine baby were discovered. The interior of the shrine room has a line of pedestals along the back and side walls. The pedestals have socket holes, and the images of goddesses found in the debris are provided with tenons. All this indicates that the temple was sacred to goddesses, possibly Yoginis. According to a local legend the temple was constructed by a shepherd (gadaria) hence the name Gadarmal.

THE SOLA KHAMBI, or sixteen pillared hall is on the bank of a tank and was possibly a pleasure resort, though its purpose cannot be decided with exactitude. It has been assigned to the 9th or 10th century A.D. on architectural grounds.

THE DASAVATARA TEMPLES are a group of shrines, each dedicated to one of the ten incarnations of Vishnu. There is also a hall which once housed images of all the ten incarnations. The temples are now in ruins and date from the 8th to the 10th century A.D.

THE SAT MARHI TEMPLES—the seven shrines as they are popularly known—are now only represented by six structures, though the ruins indicate the past existence of many more. Sculptures in the ruins indicate that some of the shrines were Vaishnavite ; others Shaivite. At least one shrine was sacred to Ganesh. The sculptures include three seated idols of Buddha, the ninth incarnation of Vishnu. These temples, nearly a mile north-east of the Dasavatara temples, are contemporary with them.

THE JAIN TEMPLE consists of 25 shrines or cells enclosed in an oblong courtyard in the centre of which is a raised platform. The

cells appear to have been constructed at dates ranging from the 9th to the 12th century or even to a later period. The cells shelter images of one or more of the 24 Tirthankars. The principal shrine, which is in the southern row, and a few other cells are surmounted by sikharas. Others have domes or flat roofs. Several cells have short Sanskrit inscriptions—pilgrim records of the 11th century A.D.

THE PATHARI MONUMENTS are a rock-cut panel of the "Sapta Matrikas" (seven mothers), a monolithic pillar, a huge unfinished image of Varaha and a Shiva temple. The Sapta Matrikas panel belongs to the 5th century A.D. and the others range in date from the 9th to the 11th century.

The Sapta Matrikas panel is sculptured in the south face of the hill between Badoh and Pathari and a Sanskrit inscription under the panel mentions a king, Jayatsena. The monolithic pillar stands in the village itself. On it is a record that the pillar was set up as a Garudadhvaja by the chief minister of the Rashtrakuta King Parabala in 861 A.D. The Varaha sculpture is on a huge boulder about half a mile to the east of the village. The Shiva temple stands in a grove at an equal distance to the south-east.

BAGH. Lying in the extreme south-west of Gwalior territory, Bagh is 90 miles by metalled road from either Mhow (W. R. and D. B.) or Indore (W.R. and D.B.) on the Ajmer-Khandwa section of the B. B. & C. I. Railway. There is a regular motor service between Mhow or Indore and Bagh, the route being *via* Dhar and Sardarpur. The road has furnished dak and inspection bungalows at regular stages and there is an inspection bungalow at Bagh but here travellers have to make their own arrangements for food. The chief monuments are the Mahakala Temple and the rock-cut Buddhist caves.

THE MAHAKALA TEMPLE, nearly a mile to the east of Bagh town, is one of the only two specimens of mediæval temples surviving in this part of the country. Though the temple has been damaged, it is still in use and houses a Shiva linga. From its architecture, it has been assigned to the 10th or 11th century A.D.

THE BUDDHIST CAVES are 2½ miles by cart track and 5 miles by metalled from the town. Like similar excavations in other parts of the country these caves are popularly known as Pandava Gupha (Pandavas' caves). They are however Buddhist and have nothing to do with the heroes of the Hindu epic. The caves are excavated in a hill overlooking the Bagh river, and originally there were many caves. Owing to the weakness of the rock nearly all of them have been seriously

damaged, so that only six caves have survived in a half ruined condition. Cave No. 3 is a vihara (monastery type cave) and caves Nos. 2 and 4 are combinations of the chaitya (cathedral type cave) and the vihara type. Cave No. 5 is neither chaitya nor vihara and was perhaps either a refectory or an oratory.

By reason of their architecture and painting these caves were regarded as belonging to the 7th century A.D., but a recently discovered copper plate inscription makes the date of at least some of them the 5th century A.D.

The caves possess some very fine sculptures but the frescoes with which almost all the available surfaces of walls, pillars and ceilings were once decorated, are the chief feature. Unfortunately owing to the decay of the stone in which the caves were cut, only a small fragment of the original paintings has survived, but the little that is left bears testimony to the brilliance of these painters of 14 centuries ago.

A detailed description of these caves will be found on the monograph on them issued by the Gwalior Archeological Department.

Bagh lies on the old main route between Gujerat and Malwa, and still enjoys sufficient trade to justify the establishment of a mandi (controlled market).

BARNAGAR. Headquarters of a tehsil in Ujjain district, Barnagar is among the first dozen towns in the State, and has a population of over 10,000. It is a mart of importance in Malwa and has a mandi (controlled market). A State maternity home has been established there and other modern facilities which are planned include an electricity supply and drainage.

BESNAGAR. Identified as the ancient town of Vidisa, Besnagar is described under Bhilsa.

BETWA RIVER. Anciently known as the Vetravati, the Betwa rises at the village of Kumri in Bhopal State and flows in a generally north-east direction. After a course of 50 miles in Bhopal the river enters Gwalior near Bhilsa, past which town it flows. It first touches the United Provinces in the south-west corner of Lalitpur tehsil of Jhansi district and forms the boundary between the district and Gwalior State. It then crosses the district obliquely, traverses part of Orchha State, flows for some distance between Jalaun on the north and Jhansi and Hamirpur on the south and falls into the Jumna close to Hamirpur after a course of 190 miles in the U.P. In its upper course the Betwa flows over Vindhyan sandstone crossed by veins of quartz which break the stream into beautiful cascades. At Deogarh the Betwa passes in a magnificent

sweep below steep sandstone cliffs which are crowned with a ruined fort. The Betwa is mentioned in the Puranas and in Kalidasa's "Meghaduta." According to tradition the Pandavas fought the king of Bhilsa (Vidisa) on its banks.

BHANDER. Headquarters of a pargana in Bhind district, Bhander is picturesquely set between the Pahuj river and a lake formed by damming one of the river's tributaries. The site is evidently an old one; the ancient city is said to have been swallowed by an earthquake. There are the remains of a few old temples on a hill near by. In the 15th century Bhander belonged to Orchha State and fell to Scindia in the 18th century.

It has a considerable trade in grain, spun and raw cotton and rough cloth. Bhander has a mandi (controlled market) and a State maternity home.

BHILSA. An important centre of trade, Bhilsa (W.R. and D.B.) is one of the first dozen towns in the State and has a station on the Bombay-Delhi line of the G. I. P. Railway. A branch road connects it to the Bombay-Agra road at Deharda, 94 miles south of Gwalior. The route is *via* Esagarh and Pachhar. Other roads linking Bhilsa with Sagar and Bhopal are approaching completion. Bhilsa has a mandi (controlled market) and a State maternity home. Water and electricity supplies are planned for the town.

Bhilsa, or probably the older city of Besnagar, was important in the time of Asoka (3rd century B.C.). If the identification with Vidisa be correct it subsequently became the capital of eastern Malwa and the headquarters of the Sunga prince Agnimitra. Bhilsa first appears in Muslim writings as Mahabalistan in Alberuni's description of India. In 1235 Bhilsa was sacked by Altamsh and in 1290 it was captured by Ala-ud-din. In 1532 it was plundered by Bahadur Shah of Gujerat. During Akbar's reign it formed the headquarters of one of the mahals in the sarkar of Raisen in the Malwa subah. The town was renamed Alamgirpur but this name never came into general use. In the 18th century it was granted by Sawai Jai Singh of Jaipur, then Governor of Malwa, to the Nawab of Bhopal, but it passed soon afterwards into the possession of the Peshwa. It came into Scindia's hands in 1775 and has since formed part of Gwalior State.

The neighbourhood of Bhilsa is particularly rich in historical remains. The famous Buddhist stupas of Sanchi are just across the border in Bhopal State, and the following monuments inside Gwalior territory are well worth a visit:

LOHANGI ROCK is an isolated sandstone peak near the railway station. On the top of the peak is the capital of an ancient pillar, locally

known as the Pani-ki-Kundi; the tomb of Lohangi Pir, a Musalman saint with a considerable reputation in the locality; a ruined mosque with a Persian inscription which refers to Sultan Mahmud Shah Khilji I of Mandu (1457 A.D.), and an old covered masonry tank.

GUMBAZ-KA-MAKBARA, a small tomb in the old fortified portion of the town shelters two grave stones one of which bears a Persian inscription of 1487 A.D. showing that a merchant of importance is buried here.

BIJAMANDAL MOSQUE, which also stands inside Bhilsa town, is a large building erected by Aurangzeb in 1682 on the foundations of a Hindu temple of about the 11th century A.D. As the Sanskrit inscription on one of the mosque pillars shows, the original temple was dedicated to the goddess Charchika (?). The goddess may have had another name, Vijaya, which caused the temple to be known as the Vijaya Mandir. This name survives in the popular name of the mosque.

THE SITE OF BESNAGAR is about two miles west of Bhilsa railway station and in the fork of the Betwa and Bes rivers. Mentioned as Vessanagara in the Pali books of the Buddhists and as Vidisa in Sanskrit literature, Besnagar is still demarcated by the ruins of a city wall and numerous mounds. The ruins range in date from the 3rd century B.C. to the 10th-11th century A.D. The Buddhist penance grove at Sanchi was originally connected with the city of Besnagar. The name now survives in that of Bes hamlet, standing in a corner of the site.

THE HELIODOROS PILLAR stands on an eminence on the northern bank of the river Bes—it was once in a suburb of Vidisa. Popularly known as Khamb Baba, it bears an inscription in Pali stating that it was set up as a Garuda pillar in honour of the god Vasudeva (Vishnu) by the Greek Heliodoros who had come to the court of King Bhagabhadra of Vidisa as an ambassador from the Greek King Antialcidas of Takshasila (Taxila) in the Punjab (circa 150 B.C.). Heliodoros styled himself a Bhagavata, having embraced Hindusim.

UDAYGIRI CAVES are excavated in the eastern face of a small hill four miles west of Bhilsa railway station. They can be reached by a metalled road. The caves are mostly small chambers which shelter idols, though several are nowadays vacant. Caves Nos. 1 and 20 are Jain, the remaining 18 being Hindu. They bear three Sanskrit inscriptions referring to Gupta emperors (5th century A.D.), and possess some strikingly beautiful sculptures of the gods and goddesses of the Hindu

Pantheon. The colossal image of Varaha in Cave No. 5 is the largest and finest of its kind yet known. There is also a large sculpture of Seshasayi Vishnu in Cave No. 13, and though it is much ruined, it is a fine specimen of Gupta art.

BHIND. The headquarters of the district of the same name and the terminus of the Gwalior-Bhind branch of the Gwalior Light Railway, Bhind is in size among the first dozen towns in the State. Locally known as Bhind-Bhadavar, it was originally the chief seat of the Bhadauria Rajputs, a branch of the Chauhan clan, who claim to have held it for 22 generations. In the 18th century it fell to the Scindia and has since been part of Gwalior State. There are a number of buildings of interest in the town and also the lake, Gauri Tal, which is surrounded by fine ghats. On its bank stands the temple of Vyankateshvara Mahadeo.

Bhind is important as a cotton mart and there are a number of ginning factories and cotton presses in the town. The manufacture of brassware is a staple industry. Bhind Municipality was constituted in 1902 and water and electricity schemes are planned for the town. It possesses a mandi (controlled market) and also a State maternity home.

BHUTESVARA VALLEY. See Padhavli.

CHAMBAL RIVER. The largest river touching Gwalior territory, the Chambal is one of the chief tributaries of the Jumna. It rises in Janapao Hill, 2,019 feet above sea level, in Indore territory and nine miles west of Mhow. It flows north through Gwalior, Indore, and Sitamau, then skirts Jhalawar and enters Rajputana at Chaurasgarh, 195 miles from its source. It receives many tributaries in Central India, the chief being the Chambal and Sipra. The Chambal is also joined by the Kali Sind and the Mej and the Parbati comes in at the point where Jaipur, Kotah and Gwalior meet. The Chambal forms the boundary between Gwalior and the territories of Jaipur, Karauli and Dholpur. South of Dholpur the river flows through open country and in the dry season it is a stream 300 yards wide and about 170 feet below the level of the surrounding country. During the rains, however, the Chambal rises 70 feet—sometimes even 100 feet above summer level. The breadth is then more than 1,000 yards and the current moves at a speed of 5½ miles an hour. Along this section the river's banks are intersected with deep ravines, some of them as much as 90 feet deep and running back for three miles. This broken country became notorious as a haunt for dacoits and other outlaws and the Gwalior Durbar has made vigorous efforts to reclaim it and to prevent the ravines from spreading by encouraging the building of bunds and by tree planting.

The Chambal joins the Jumna 25 miles south-west of Etawah town after a total course of 650 miles. The Chambal has been identified with the Charmavati of Sanskrit writers.

CHANDERI. In size among the first dozen towns in the State, Chanderi is 1,300 feet above sea level and picturesquely placed in a great bay of sandstone hills. These are entered by narrow passes which in days gone by made Chanderi a place of considerable strategic importance. The area around the town is highly fertile and there are numerous lakes.

Chanderi (D.B.) is 24 miles north of Mungaoli (D.B.), a station on the Bina-Kotah section of the Great Indian Peninsula Railway. A motor bus service connects the two towns. Chanderi is also 21 miles from Lalitpur on the Bombay-Delhi line of the Great Indian Peninsula Railway but part of the road between Lalitpur and Rajghat (13 miles) is not metalled. Chanderi can also be reached from the Bombay-Agra road by a feeder road which takes off at Deharda, 20 miles south of Shivpuri, and goes to Chanderi *via* Isagarh, a distance of 55 miles. The Chanderi-Pichhore road connects the town with Shivpuri, Jhansi and Basai.

Situated in the centre of a fertile area, Chanderi still has importance as a market centre and a mandi (controlled market) has been established there. The town has long been famous for its extremely fine muslins and gold brocades. A technical institute is maintained in the town by the State to foster this industry and Chanderi textiles have the steady support of the Ruling Family whose example is being followed by other influential persons in the State. An attempt is being made to revive shellac making from locally produced lac.

Modern Chanderi grew up after the fall of the old city of pre-Muhammedan days. The ruins of this older city, Budhi Chanderi (old Chanderi), as it is known locally, are about nine miles north-west of the modern town. The Chanderi we know today was at the most flourishing state of its history under the Sultans of Mandu in the 15th century A.D. There is therefore very little that goes back to an earlier period except the rock-cut Jain sculptures on Khandar Hill to the south of the town.

THE HILL FORT of Chanderi is 230 feet above the town, and according to a Sanskrit inscription it was built in its first form by Kirttipala, a Pratihara king, in the 11th century, and named Kirttidurga after him. The only ruins of importance left on the fort are those of the Nau Khanda or Hawa Mahal, (a palace of the Bundela Rajas who held Chanderi during the 17th and 18th centuries) and a mosque. A monument has recently been erected to commemorate the Johar (death by burning) performed there by a number of Rajput ladies on the eve of Babar's conquest (1528 A.D.)

THE KOSHAK MAHAL, according to the " Tawarikh-i-Farishta", was ordered to be built by Mahmud Shah Khilji I of Malwa when he passed through Chanderi in 1445. The Koshak Mahal, the outcome of his order to build a seven storeyed palace, is now in a half ruined condition, but by no means devoid of grandeur.

Later palaces were built by the Bundela Rajas not only in the town but also in charming localities outside. Among these are the Raja-ka-Mahal in the town, the Nau Khanda on the fort, and the Ramnagar, Singhpur and Panchamnagar Mahals in the neighbourhood.

THE JAMA MASJID is perhaps the biggest mosque extant, not only at Chanderi, but in the whole of Gwalior territory. Its imposing domes, long arcades, and brackets supporting the spacious line of eaves are its chief features.

NIZAM-UD-DIN'S FAMILY GRAVEYARD possesses a number of tomb carvings of great beauty. The most notable is a finely executed mehrab of the 15th century on a tomb in this Saint's family graveyard.

SHAHZADI-KA-ROZA. The name of the person to whom this tomb was erected is not known, though the tradition preserved in its name suggests an emperor's daughter. But among the many tombs of Chanderi, this holds high place by reason of its architecture. On the outside the building is decorated with ornamental arches, medallions, kanguras and bands of geometrical designs. These were once inlaid with coloured enamelled tiles, of which only traces now survive. The chamber was once topped by a large dome and four cupolas, all of which have now disappeared.

PARAMESVARA TAL. Of the tanks with which Chanderi abounds, the most picturesque is the Paramesvara Tal, half a mile to the north-west of the town. It was probably built by the Bundela Rajas, as the cenotaphs of three of them and a temple stand on its banks.

BATTISI BAODI is the largest and best preserved baodi (step well) in Chanderi. Its name is derived from the 32 flights of steps arranged in four storeys with eight staircases in each. According to a Persian inscription the well was built in the reign of Sultan Ghiyas Shah of Malwa, in 1485 A.D.

JAIN PILGRIMS regard Chanderi as an important place, and there are rock-cut Jain images and a modern Jain temple. Budhi Chanderi possesses a number of ruined Jain temples of the 9th and 10th centuries.

These ancient temples are studded with images of the Jain Tirthankars, exquisitely carved. More vestiges of Jain monuments are to be found at Bithla and Rakhetra, near the old city.

THOBAN, nine miles south-west of Chanderi, is another Jain centre, possessing a number of Jain temples of comparatively late date, and also numerous ruins of mediæval Hindu temples.

Further details of Chanderi and its monuments will be found in " A Guide to Chanderi " issued by the Gwalior Archeological Department.

DABRA. A market town of growing importance 26 miles south of Gwalior on the Gwalior-Jhansi road, Dabra (D.B.) has a station on the Great Indian Peninsula Railway and a mandi (controlled market). Dabra is situated in the area served by the Harsi Dam irrigation scheme where largely increased yields of wheat and sugar are expected. A sugar factory has been planned for Dabra. A town committee was recently established there.

Pawaya, the site of ancient Padmavati, is 13½ miles from Dabra, and is reached by a cart track branching off the Dabra-Bhitawar road in its ninth mile (see Pawaya).

GOHAD. Four miles by road from Gohad Road Station on the Gwalior Light Railway, Gohad (D.B.) is 25 miles north-east of Gwalior and is three miles from the Gwalior-Etawah road to which it is connected by a branch road. The town was founded in the 17th century by a branch of the Jat family whose descendants now rule at Dholpur. It was in the possession of the Bhadauria Ranas from 1707 to 1739, and after many vicissitudes, during which they changed hands a number of times, the town and fort were finally taken over from the Rana by Daulat Rao Scindia in 1805.

Gohad town stands on the right bank of the Vaisali river, a tributary of the Sind, and is surrounded by three walls, the innermost of which encircles the massive fort completed by Rana Bhim Singh. The fort is now in ruins, but remnants of fine carving in stone and glass mural decorations, characteristic of the Rajput architecture of that age, still survive in the Old Mahal on the fort. In the New Mahal, also on the fort, are spacious halls and a profusely carved gateway. It was built by Rana Chhatrapati Singh who held Gohad in the latter part of the 18th century. The palace is now in use as the local civil offices.

Four tombs outside the town are said to be those of European officers or soldiers in the service of Scindia who were probably killed in battle near here. One of the tombs lying about a quarter of a mile south-west of the Dak Bungalow is that of Major Pierre Lambert who died in 1780.

The other three tombs, two of which are in an advanced state of decay, bear no inscriptions.

GUNA. Headquarters of Guna (formerly Isagarh) District, Guna town is also the headquarters of the tehsil of the same name. In point of size Guna is one of the first dozen towns in the State. It has an up-to-date civil hospital, and drainage and electricity schemes have also been prepared for the town.

Guna, which is on the Bombay-Agra road and on the Bina-Baran branch of the Great Indian Peninsula Railway, was originally a small village and became important after 1844 when it was made a station of the Gwalior Contingent Cavalry. An important further increase in its trade was marked in 1899 when the railway between Guna and Baran was opened. It is one of the big marts of the State and a mandi (controlled market) has been opened there.

GWALIOR. The capital of the premier State in Central India is composed of three towns : Lashkar, lying to the south of the Fort and on the site of the Scindia lashkar (camp) which was fixed in 1810 by Maharaja Daulat Rao Scindia ; Old Gwalior, lying below the north end of the Fort hill and dating from ancient times, and Morar, east of the Fort, which was for a time the British Cantonment. It still contains the Residency. The three towns whose municipalities have been amalgamated are each about two miles from the others and are interconnected by good roads. Gwalior is 763 miles from Bombay and 195 miles from Delhi on the Great Indian Peninsula Railway main Bombay-Delhi line. It is 72 miles from Agra on the Bombay-Agra road, and there are metalled roads from Gwalior to Etawah (76 miles) and Jhansi (60 miles). The capital is the headquarters of the northern lines of the Gwalior Light Railway which connect Gwalior with Bhind, Shivpuri and Sheopur.

By far the largest town in the State, the capital city has a population of 1,12,000 and with its up-to-date facilities such as water supply, drainage, electricity, medical services, and town-planning (details of which will be found in the relevant chapters) Gwalior compares favourably with any other city in the country.

LASHKAR. Though the Fort and Old Gwalior have histories which run back many centuries the area did not find a permanent place in Gwalior's development until Maharaja Daulat Rao shifted the Scindia headquarters to Lashkar from Ujjain in 1810. At first there was only the standing camp, but in a few years permanent buildings began to appear, notably the old palace now called Maharajabara. But even by 1818 the

aspect of an encampment had by no means disappeared as a contemporary description shows :

> " It (Lashkar) presents the appearance of an immense village, or rather collection of villages, with about a dozen ' chunamed ' buildings, shapeless, coarse, without any air of adornment. And here and there many small trees and hedges of the milk plant, all of quick growth and late planting, but yet giving the whole a fixed and settled aspect. At the second gaze, however, you see interspersed many tents and ' palls ', flags and pennons, in some parts hutted lines and piles of arms—in one range a large regular park of artillery, in all open spaces horses picketed, strings of camels, and a few stately elephants. On the skirts of this large mass a few smaller and more regular encampments belonging to particular chiefs with their followers, better armed and mounted. The sounds, too, of neighings of horses, drums and firearms, and occasionally the piercing trump of an elephant mingled in the confusion with the hum of a population loud, busy and tumultuous, convincingly tell you that the trade here is war, the manufacture one of arms. "

Ten years later the city had a more settled appearance, the main street having many large houses of stone. Even so, the past century has produced yet more remarkable changes—the parks and the palaces, the housing schemes and straight wide roads, the defeat of disease by efficient drainage and water supplies, the fine buildings for courts, schools and hospitals.

THE PALACES. Just below the Fort is the great walled enclosure of the Phul Bagh which today consists of the King George Park, open to the public, and the grounds in which stand the Jai Vilas and Moti Mahal Palaces.

The Jai Vilas, the present residence of the Ruling Family, was built in 1874 in Italian style by the late Sir Michael Filose. It is famous for its Durbar Hall, a chamber 100 feet long, 50 feet wide and 40 feet high. It is decorated in gold and hung with wonderful chandeliers and mirrors. A crystal staircase forms the approach to the hall. This magnificent building is said to have cost a crore of rupees.

The Moti Mahal, which is older, was also built during the reign of Maharaja Jayaji Rao, the grandfather of the present Maharaja. The Moti Mahal is said to have for its inspiration the Peshwa's Palace at Poona. Today it is used as the State Secretariat and in addition to the offices of the various Departments it contains an Assembly Hall, Council Chamber and Secretariat Library. Some of the rooms are inlaid with mosaic work of coloured glass and decorated with mural paintings, which represent scenes from Hindu mythology, the Ragas and Raginis, and also scenes from the ceremonial durbars, processions and shikars of Maharaja Jayaji Rao.

The Maharajabara Palace (often referred to as the Gorkhi), in the heart of the City, is the oldest of the Lashkar palaces and was built in 1811 by Maharaja Daulat Rao Scindia. A fine carved stone gateway leads to the palace which is now used as public offices.

The Kampoo Kothi was completed in 1865 as a residential palace by Maharaja Jayaji Rao who resided there until 1874 when he transferred to the Jai Vilas. The Kampoo Kothi is remarkable for the paintings on its ceilings and walls. The major portion of it is nowadays occupied by the Normal School, the Boy Scouts' headquarters, the Kamla Raja Girls' High School and the Vanita Udyoga Samaj, an industrial institution for helping poor women.

KING GEORGE PARK was laid out by the late Maharaja Madhav Rao in a portion of his palace grounds which he set apart for the use of the public. The park was opened by the Duke of Windsor when he visited Gwalior as Prince of Wales in 1922. There are good roads, green lawns and quiet retreats in the Park which like the rest of Gwalior's open spaces is remarkable for its masses of flowers. There is also a zoo with a large variety of wild beasts and birds, and the State Museum with a large collection of natural history exhibits.

A special feature of the Park is that in it are a Hindu temple, a Muhammedan mosque, a Sikh gurudwara and a Theosophical lodge—all built and maintained chiefly at the State's expense. A fine example of the broad-mindedness with which the late ruler viewed the faiths of his subjects.

In this park is a marble statue of the present Maharaja's grandmother, Maharani Sakhya Raja, remembered among the people as Jeeja Maharaj. Opposite the statue is the Jalabihar Ladies' Club which possesses a library and reading room and provision for indoor and outdoor games.

STATUES of past Rulers of the State include that of Mahadji Scindia at the junction of four roads in front of the Elgin Club. The most distinguished of the Ruler's ancestors, Mahadji is represented by a bronze statue set on a marble pedestal in the centre of a circular platform. The whole is edged with a stone railing in the style of an ancient Buddhist stupa, and surrounded with turf and beds of flowers. In Jayaji Chowk, the great central square of Lashkar (popularly known as the Bara), is the bronze statue of the ruler after whom the Chowk is named—Maharaja Jayaji Rao. The statue is on a high pedestal surmounted by a spire.

CHHATRIS or cenotaphs which commemorate departed members of the Ruling Family number 10, those of the Maharajas Daulat Rao, Jankoji Rao and Jayaji Rao being the most important. The chhatri of Maharaja Jankoji Rao has delicate old style stone carving and had some

good mural paintings, most of which are now nearly obliterated. The chhatri of Maharaja Jayaji Rao is the largest and is executed in magnificently carved stone.

The chhatri of the famous Rani Lakshmibai of Jhansi, a modest building, is to the west of Park Hotel on Station Road. Acknowledged even by her enemies as a most capable leader on the side of the rebels in the Mutiny of 1857-58, the Rani fell in battle at Gwalior. The platform of the chhatri marks the site where her body was cremated in a stack of hay by a handful of devoted followers who were still left with her.

THE CITY proper lies beyond the palaces and is more or less bisected by the main road leading from Gwalior railway station. The station for its size is one of the handsomest in the country.

The principal thoroughfare in Lashkar is Jayendraganj Road. It is lined on one side with the buildings of the Jayaji Maratha Boarding House, the Madhav Rajput Boarding House and hostels for the Victoria College and Victoria College High School. Opposite the Maratha Boarding House is the Jivaji Rao High School. This road leads from the palaces to the middle of the city.

JAYAJI CHOWK, to which reference has already been made, can be regarded as the hub of Gwalior. The statue of Maharaja Jayaji Rao which forms the centre, is surrounded by a public garden, filled with flowers and trees. The wide road running round this garden is lined with fine buildings including the Town Hall and Theatre, the State General Post Office and offices of the " Jayaji Pratap ", the State newspaper, the Victoria Memorial Market, the offices of the Municipality, the Gorkhi or old Palace, the Victoria Memorial Market, the Alijah Durbar Press and the Imperial Bank Building. The grouping of such institutions around this square makes it the busiest part of the city and gives an imposing picture of Gwalior's prosperity.

The Town Hall, the Market, the Post Office and the Alijah Durbar Press were designed and built by Sardar Balwant Rao Bhaiya Scindia under the order of the late Maharaja.

SARAFA BAZAAR, or bankers' market, is one of the main streets leading off the Chowk. It is thickly lined by houses several storeys high with balconies, screens, pillars and brackets all elaborately carved—proof of the high art of the Gwalior stone cutters both past and present. The houses are mostly inhabited by bankers, jewellers, and brocade and cloth dealers. Along this road are to be found the Ayurvedic and Unani Pharmacy which manufactures indigenous drugs, the Kanhaiya Lal Prakash Gota factory which makes gold and silver thread and carries out all kinds of gold and silver embroidery, and the tall red building of the Krishnaram Baldeo Bank, the most important concern of its kind in the State.

Beyond the Sarafa Bazaar is the Jinsi Building, built in Ionic Grecian style. It has recently been refitted internally and the Gwalior High Court, together with all the other courts sitting in the capital, has been established there.

Other important public buildings in Lashkar include the Jaya Arogya Hospital which stands to the south of the Jai Vilas Palace. This is the chief hospital in the State. It is equipped with many of the latest developments of medical science and further additions are being made to it. It is housed in a really handsome building which represents Gwalior's modern architecture at its best. Another fine building is that of the Victoria College, not far from the Hospital. Here are some really fine examples of jali-work—stone screens—at making which the Gwalior craftsmen have long excelled. The college is a full degree college affiliated to Agra University.

Further west are the Kampoo Kothi (of which mention has already been made) and the new Imam Bara which was built to house the Maharaja's Tazzia during the Mohurram festival. It is also used for important public functions on other occasions.

The Central Technical Institute on Station Road has provision for instruction in mechanical engineering, fitting, carpentry, weaving, dyeing and calico printing. The Industrial Museum, not far from the Central Technical Institute, exhibits industrial products from all over the State, including the leather goods and pottery of Gwalior, the lacquer work and toys of Sheopur, the muslins of Chanderi and specimens of stone carving and of jail industries.

Gwalior has not been lax in providing for the convenience of travellers passing through the capital. The Dufferin Serai, an outstanding institution of its kind, is on Station Road and is remarkable for its very fine stone gateway. Of the two State-run hotels, the Park Hotel in excellent surroundings has been built for the convenience of Indian visitors. The Hotel de Gwalior, built in Indo-Saracenic style has 60 bedrooms, is run on most modern lines and is thoroughly cosmopolitan. There is also the Sri Krishna Dharmasala where free accommodation is provided.

Details of Lashkar's clubs will be found in the chapter on Public Institutions.

GWALIOR FORT. The great fortress on the hill which dominates the capital of the State, is one of the most famous in India. With truth did a Moghul historian describe it as "The pearl in the necklace of the castles of Hind, the summit of which the nimble footed wind from below cannot reach and on the bastions of which the rapid clouds never cast their shade." The history of the Fort (which is given in detail in the chapters dealing with the State's history) goes back to the 5th century A.D. and perhaps even earlier. The old name of the hill, as recorded in ancient Sanskrit inscriptions, is Gopagiri, the cowherd's hill. Successive tides of

invasion—the Guptas, the Huns, the Kachhwahas, the Pratiharas, the Tomars, the Pathans, the Moghuls, the English and the Marathas—have left traces of their domination in monuments which still stand in the Fort. By contrast with the blood-stained pages of history, peace now reigns within in these walls which today enclose the Scindia School.

The flat-topped hill on which the fortress stands is about 300 feet high, 1¾ miles long from north to south and varying from 600 to 2,800 feet wide from east to west. Today two roads climb the precipitous face of the rock—one to the Urwahi Gate on the west and the other to the Gwalior Gate on the east. The Gwalior Gate road is too steep for wheeled conveyances, but elephants are available for visitors to hire for the trip. The Urwahi Gate route is passable to motor traffic and is also the easier route for pedestrians.

Near the Gwalior Gate is the famous Gujri Mahal, one of the six palaces which are to be found in or near the Fort. It was built by the Tomar Raja Man Singh in the 15th century for Mrignayani, his favourite queen who was a Gujri by caste. The palace is a notable two storeyed edifice with a magnificent quadrangle. The simplicity of the exterior is relieved by domed turrets, a line of graceful carved elephant brackets supporting the eaves and horizontal bands of carved moulding which were once inlaid with enamelled tiles. Many of the windows in the palace are excellent examples of their period in Rajput architecture.

This palace is now appropriately used for housing the Archeological Museum where a large collection of carvings, images, coins, inscriptions, paintings and other antiquities, dating from the 3rd century B.C. to the 18th century A.D., are preserved. At the northern end of the enclosure in which the Gujri Mahal stands is the cemetery where British soldiers who died during the British occupation of the Fort between 1858 and 1886 are buried.

The climb to the top of the fort is up a long ramp passing through six gates. The lowest of these is the Alamgiri Darwaza which was built in 1660. Next comes the Badalgarh Pol which is 15th century Hindu work. The fourth is the Ganesh Gate and just beyond it there is a small mosque erected by a Musalman Governor of the Fort on the site of the original shrine built by Suraj Sen to Gwalipa, the titular saint of the hill.

Of considerable archeological importance is the small rock-cut Chaturbhuj Temple near the Lakshman (5th) gate. The temple bears two Sanskrit inscriptions one of which shows that the temple was excavated during the reign of King Rama Deva of Kanauj in 875 A.D. Further up the hill there are several niches in the rock. These shelter Hindu and Jain images, but they are now nearly obliterated. There are also two water reservoirs known as the Sarad Baori and the Anar Baori excavated in the hill-side.

The topmost gate of the Fort is the Hathi Pol (Elephant Gate) so named on account of the life-sized stone elephant which once stood here.

The gate forms part of the eastern facade of Raja Man Singh's Palace and its graceful though sturdy design makes it worthy of the palace to which it belongs.

RAJA MAN SINGH'S PALACE, described by Fergusson as "the most remarkable and interesting example of Hindu palaces of an early age in India", is perhaps the most magnificent example of Rajput Palace architecture of the 15th century. Raja Man Singh was famous for his patronage of the arts—particularly of architecture—and in this building palace architecture in Central India certainly reached its high water mark. The magnificent facade, a familiar feature of the Gwalior skyline, is 300 feet long and about 80 feet in height (though it must be remembered that for practically its whole length it is built on the edge of a precipice several hundred feet deep). This vast stretch of masonry is relieved by six round towers spaced at regular intervals. They are of a singularly pleasant design, combining the gracefulness of pleasure kiosks with the utility of look-out posts. They are crowned with cupolas.

The outside walls of the palace are inlaid with enamelled tiles of blue, green and yellow. These form bands of mosaic showing conventional figures of men, geese, elephants, crocodiles, tigers and plantain trees. The result is a charming decoration for an architectural style which is notable for its strength and simplicity.

The interior of the building, which is much more ornate, consists of two open courtyards surrounded by suites of rooms which possess ceilings worked in a variety of designs. The whole interior is remarkable for the richness of its decorations—perforated screens, pendants, cornices, mouldings, and geometrical and floral patterns worked in mosaics of enamelled tiles. Tradition has it that the palace was once decorated with jewels which Aurangzeb is reputed to have removed to Delhi. Time has mellowed the sandstone to a warm cream colour.

Underneath the main courtyards are two subterranean floors. It is said that the rooms on the eastern face were used by the Tomar court during the hot weather. But most of these rock-cut chambers are very definitely dungeons and during the Moghul possession of the fort they were used for the confinement of State prisoners including Prince Murad, the brother of Aurangzeb.

THE MOGHUL PALACES nearby are now used as magazines for military stores. Also close by is the Johar Tank in which Rajput ladies burnt themselves alive to avoid capture by Altamsh, the Slave King, who took Gwalior Fort in 1232 A.D.

THE SAS BAHU TEMPLES are two buildings which occupy a picturesque position on the eastern face of the Fort rock about a quarter of a mile to the south of Man Singh's Palace. Sas Bahu which means

mother-in-law and daughter-in-law is a popular name given to two unequal objects standing side by side. From a Sanskrit inscription on the porch of the larger temple it is revealed that the temple was completed in 1093 A.D. during the reign of Mahipala, a Kachhwaha Rajput prince of Gwalior. The temples were dedicated to Vishnu. They are interesting as specimens of the ornate style of medieval architecture in Northern India. The doorways, ceilings and huge pillars in the interior of the larger temple, with their elaborate carvings, are particularly impressive. The view near the small temple commands a fine panorama of the country below.

TELI-KA-MANDIR, the "Oilman's Temple" as it is popularly known, is the loftiest of all existing buildings on the Fort. It is over 100 feet high, and is a 9th century Vishnu temple, peculiar in plan and design. The form of the tower is Dravidian, the architectural style of South India. On the other hand all the decorative details are Indo-Aryan, the style of North India. This blending of the two styles is apparently recognised in the name which is thought to have been Telingana Mandir, the "Temple of the Telugu Country." The temple possesses some bold arabesque work in the horizontal band of decoration on its base.

SCINDIA SCHOOL. The barracks built during the British occupation of the Fort have been converted into schoolrooms and residential quarters for the boys and teachers of the Scindia School. This school is conducted on the lines of an English public school, with modifications to suit local conditions. Full details will be found in the chapter on Education.

SURAJ KUND. The square tank known as Suraj Kund is on the road to the Urwai Gate, on the western side of the Fort. The miraculous waters of this tank are supposed to have cured Raja Suraj Sen, the traditional founder of the Fort, of leprosy. The tank was built in the 6th century.

DATA BANDI CHHOD. Nearby is the spot where according to legend Teg Bahadur, the Sikh guru, was imprisoned. It is said that when the good offices of some of his Muhammedan friends secured his release, he also obtained the release of a hundred Rajas who were imprisoned in the Fort. He had a garment with a hundred tails to each of which one of the princes clung as the guru walked out of the Fort.

JAIN SCULPTURES. On both sides of the road running down from the Urwai Gate, and at several other points on the sides of the Fort, rock, there are groups of images of the Jain Tirthankars. The figures, large and small, standing and seated, are sheltered in small caves or niches.

These Jain sculptures are unique in Northern India both on account of their number and their gigantic size. The largest of them is a gigantic image about half-way down the north side of the Urwai slope. It is 57 feet high. The carvings were done during the 15th century, the period when the Tomar rulers held the Fort. The Emperor Babar ordered the destruction of these figures after he captured Gwalior, but his orders were only partly executed.

OLD GWALIOR. The old town lies below the north end of the Fort Hill and evidently it has always been an appendage of the Fort, its fortunes varying with those of the rulers on the rock above. It consequently contains a number of buildings older than anything to be found in either Lashkar or Morar.

THE TOMB OF MUHAMMED GHAUS, lying on the eastern outskirts of Old Gwalior, contains the remains of a well-known Muhammedan saint who during his lifetime was the spiritual adviser of the Emperor Akbar. It is a fine specimen of a tomb in the early Moghul style of architecture, crowned with an impressive dome and surrounded with beautiful stone jali work.

THE TOMB OF TANSEN, the greatest singer ever known in India, stands close by. It is a simple white structure on a low platform. Tansen, one of the nine gems of Akbar's court, was a native of Gwalior State and learnt his art in the famous Gwalior School of music founded by Mrignayani, the wife of Raja Man Singh. There is a tamarind tree near the tomb and its leaves are chewed by credulous singers in the belief that they sweeten their voices.

THE JAMA MASJID is an imposing mosque of the late Moghul period, and stands just outside the Gwalior Gate of the Fort.

Other temples and mosques have been dealt with in the chapter on Religion.

MORAR. The third in the group of towns forming the capital, Morar was formerly the British cantonment. On the main road between Lashkar and Morar is the racecourse with its grandstand and enclosure. These premises are now used by the Gwalior Sports Association for all-India cricket, hockey, football and other matches and tournaments. The racecourse is also the scene of the Association's annual competitions in all kinds of sports, including Indian games, during the Holi festival when Gwalior's students are to the fore.

Nearby is the Mela ground with permanent lines of buildings for shops. A large fair, including an agricultural exhibition and cattle show, is held here for about three weeks in December or January.

Opposite the Mela ground are the Central Agricultural Experimental Farm and the Chemical and Botancial Laboratory managed by the State's Department of Agriculture.

Morar is also developing as the industrial section of the capital. The Jayaji Rao Cotton Mills occupy a large area to the west of Morar railway station. The opening of these mills has revived and repopulated Old Gwalior, the nearest inhabited area. The Gwalior Leather Factory, which also includes a tannery and tent manufacture, is a State concern situated on the Mall Road, Morar.

Morar Dam is a weir across the Morar River about a mile north of the town. Nearby is a small garden which is a popular evening resort.

GYARASPUR. A village 24 miles north-east of Bhilsa, Gyaraspur commands the pass through which runs the old route from Malwa to Bundelkhand. In the 16th century it fell to the Gonds of Garha Mandla, but was later taken over by the Moghuls. Towards the end of the 18th century the village became part of the territory of the Chandel Thakurs of Bhilsa and under Thakur Kesri Singh, Gyaraspur regained some of its old importance. The village is on the Bhilsa-Sagar road, though the nearest railway station is Gulabganj whence Gyaraspur is 15 miles by cart track.

The principal monuments around Gyaraspur are the Athakhamba, Bajramath and Maladevi temples, Buddhist remains, a tank and a fort.

ATHAKHAMBA, a group of eight pillars, to the west of the village is all that now remains of a magnificent temple of perhaps the 10th century. The remains include the door frame of the shrine, two pillars of the ante-chamber, carrying a trefoil arch, and the four central pillars of the hall. All are exquisitely carved. A pilgrim's record engraved on one of the pillars bears the date V.S. 1039 (982 A.D.)

BAJRAMATH, on the south-west of the village, belongs to a rare class of temples in which three shrines are set in a row. All the three shrines are now occupied by Jain idols, but carvings on the door-frame of the shrine and in the niches on the base of the structure show that it was originally a Brahmanical temple in which three shrines dedicated to the Hindu Trinity were combined, the central shrine being sacred to Surya (often substituted for Brahma), the southern to Vishnu and the northern to Shiva. The carving on the doorway is exceptionally fine and vigorous.

MALADEVI TEMPLE to the south of the village is the biggest of the Gyaraspur monuments and stands on the slope of a hill overlooking

of the dam allow a discharge of 1,000 cusecs, the water depth at the sill of the sluice being 43 feet. The water is supplied to 43 miles of main canal. The distributaries are still in course of development, but it is expected that they will eventually total more than 100 miles. The cost of the two dams and waste weir was about Rs. 45½ lakhs, the work being completed in 1936. (Further details of Gwalior irrigation in the chapter on "Developing Gwalior's Wealth.")

KADWAHA. A village eight miles by kachha road to the north of Isagarh (D.B.) which in turn is 24 miles by road from Takneri station on the Bina-Kotah branch of the G.I.P.R. Kadwaha is remarkable for the remains of a Hindu monastery and the remains of 14 Brahmanical temples of the 10th and 11th centuries. Such a large group is unknown in any other place in the State.

Details concerning the builders of these temples have not survived, but from inscriptions found elsewhere it is known that Kadwaha was a centre of the Shaivite cult in the medieval period and that its name was Kadambaguha. Though nowadays deserted a few of these temples are in a sufficient state of preservation to present interesting specimens of medieval architecture and fine carving. The temples, which are all within a radius of a mile of the village, are scattered in small groups. The most important are those on the bank of an old silted tank on the south of the village and locally known as Murayatas.

The ancient monastery is a large two storeyed edifice which has been included in later times in the structure of a fort now in ruins. Near the monastery is a contemporary Shiva temple now in ruins.

KALIADEH. See Ujjain.

KHACHRAUD. A town 1700 feet above sea level in Ujjain district, Khachraud is on the Ratlam-Godhra branch of the B.B.&C.I.R. It was mentioned in the "Ain-i-Akbari" as the headquarters of a mahal in the Ujjain sarkar of the subah of Malwa. In recent times the town has become of increasing commercial importance owing to the opening of the railways in Malwa. It possesses a mandi (controlled market) and a State maternity home. It is planned to provide the town with a water supply.

Khachraud has long been famous for its lacquer work on wood—including beautifully coloured bedstead legs. Kajal, medicated soot for the eyes, is made there. There is also considerable business in tobacco.

KHEJARIA BHOP. A village on the top of a low hill, Khejaria Bhop derives its name from the Khejaria shrub which grows abundantly in

the locality. The village is about ten miles by kachha cart track south-east of Suvasra station on the B.B.&C.I.R. Khejaria Bhop is famous for the rock-cut Buddhist vihara or monastery which like other excavations in the neighbourhood, at Dhamnar, Kholvi, etc., appears to be the work of the latest period of Buddhism which lingered in Central India as late as the 9th and 10th centuries A.D.

The vihara consists of 28 caves excavated in the semi-circular face of a hill opening to the north. The caves include single rooms and also suites of rooms. Their facades are usually protected by porticos cut in the rock. In only three of the caves are pillars used for support. In the other large caves the use of pillars is avoided by vaulting the ceiling. Stone beds, niches and socket holes for pegs in the walls indicate that the caves were intended to be lived in. The only object of worship is a rock-cut stupa situated almost in the centre of the line of caves.

The coarse texture of the laterite of which the hill is formed may be responsible for the absence of carving on the caves. There are no traces of plaster or painting, and it thus seems possible that the caves never reached completion: As is usual with most ancient rock caves in India, local tradition ascribes the vihara to the Pandavas, as is evident from the name Bhim-ko-Beno, Bhima's Seat, by which the stupa is known.

KHOR. Four miles by road north of Kesarpura station on the Ajmer-Khandwa branch of the B.B.&C.I.R., this village is in the neighbourhood of a group of ruined temples, and step wells of the medieval period.

Nau Toran, the biggest and most interesting of these ruins, is a remnant of an 11th century temple which stands on the roadside east of the village. It consists of a shrine, a small antechamber, a hall and three porches, all of which are now in ruins. A remarkable feature of this temple is a group of ten decorative arches or toranas arranged in rows along both the length and breadth of the hall. The arches are supported on the pillars lining the hall. There are three arches along each side and four across the width of the hall. The toranas are decorated with figures of garland bearers between two leaf pattern borders.

LASHKAR. See Gwalior.

MADHOSAGAR. Eleven miles south-west of Lashkar, Madhosagar Lake is the international airport of Gwalior. The lake has a surface of 7½ square miles which gives ample room for the largest flying boat between England and Australia to alight. The airport on the shore of the lake includes a landing jetty, resthouse for passengers, colony to house R.A.F. officers, Imperial Airways officials, Burmah-Shell Ltd., a wireless station to assist incoming aircraft, and a fully equipped meteorological station.

All modern amenities such as telephones, electric light and fans, drainage and water have been provided and the road between Madhosagar and Lashkar is being improved for fast traffic. The flying boats alight about two furlongs from the shore and passengers are brought by launch to the jetty. The total estimated cost of the airport is Rs. 5 lakhs.

MAHARAJAPUR. Six miles north-east of Gwalior, on the Gwalior-Bhind road, Maharajapur is the site for the aerodrome for land planes calling at Gwalior. The Tata Bombay-Delhi air service makes a halt here. The cost of laying out the aerodrome and providing facilities is estimated at Rs. 4 lakhs.

The State Bull Breeding and Dairy Farm, run by the Department of Agriculture, is also situated at Maharajapur. The Dairy Farm supplies hygienically produced milk to the Palace, State institutions and the public. The bull breeding scheme is part of the general attempt to raise the standard of cattle in the State by the distribution of pure bred bulls. Hariyana, Sahiwal, Sindhi and Sahiwal-Frisian cross breeds are kept here and also Murrah buffaloes.

MAHUA. A hamlet four miles east of Kadwaha and a mile south of Terahi. The ruins of three temples stand in Mahua. One of them is a small Mahadeva temple with a shrine room and porch; the sikhara has disappeared. There is some fine arabesque work and figure sculpture on the outside of the shrine. A Sanskrit inscription on the lintel of the porch is assignable to about the 7th century A.D. The other two temples are a larger and almost contemporary Mahadeva temple and a small dilapidated shrine sheltering an interesting life-sized image of Kali.

MANAWAR. Headquarters of the tehsil of the same name (formerly Bakaner tehsil) in Sardarpur district, Manawar has importance as a market for agricultural produce and has a mandi (controlled market).

MANDSAUR. Headquarters of the district of the same name, Mandsaur town stands on the banks of the Suvana River, a tributary of the Sipra. It is on the Ajmer-Khandwa section of the B.B.&C.I.R. and is 133 miles from Mhow by the Mhow-Nimach road. The town is 1,516 feet above sea level. In population it stands fifth in the list of towns in the State. As a centre of the opium trade and for the manufacture of coloured cloth for quilts and chunris Mandsaur has long been of importance. Woollen blankets and carpets, and bangles from coconut and ivory are also made here, the crafts being of long standing. Today Mandsaur has a State maternity home, a mandi (controlled market) and schemes have been

drawn up for draining and electrifying the town. Mandsaur's municipality was instituted in 1902.

Mandsaur is an ancient site of considerable archeological and historical importance. According to several Sanskrit inscriptions the ancient name of the place was Dasapura, a town of ten divisions, and it is apparently referred to in an inscription carved early in the Christian era at Nasik.

During the Gupta period (440-600 A.D.) it possessed several temples, stupas, monasteries, gardens and wells which have been completely swept away by the passage of time. Today they are only known by the inscriptions which have survived.

An image of Shiva and a torana pillar which survive, are both fine examples of the carving done during that golden age of Indian sculpture, the 5th and 6th centuries. The image was unearthed in a ravine in Mandsaur fort and the pillar was discovered half buried in an out-of-the-way spot at Khilchipura, a village two miles south of the town. Both are now to be seen in front of the Public Offices in Mandsaur fort.

THE FORT, which is on the east side of the town, is said to have been constructed by Alla-ud-din Khilji in the 14th century, and several sculptures and carved stones belonging to earlier Hindu temples have been built into the walls. The fort was apparently improved by Hoshang Shah of Malwa (1405–34). In 1535 Humayun surrounded the camp of Bahadur Shah and defeated him near the big tank outside the city. In 1562 Akbar took Malwa, and Mandsaur became the headquarters of the Mandsaur sarkar of the subah of Malwa. In the 18th century Mandsaur fell to the Scindia in whose possession it has since remained.

YASODHARMAN'S PILLARS, which were found half buried in a field near the deserted hamlet of Sondni, three miles south-east of Mandsaur, are of outstanding archeological interest. Great importance was attached to their discovery because of their use in settling the commencement of the Gupta era. The pieces of these two huge monoliths have now been assembled and arranged on a masonry platform. Excavations of the surrounding ground have revealed the foundations on which the pillars were originally erected. The pillars bear Sanskrit inscriptions reciting the glories of King Yasodharman who flourished in the middle of the 6th century A.D. and who expelled the Huns from Central India. The pillars appear to have been set up by Yasodharman to commemorate his victory over the Huns. Each pillar is 3 ft. 6 ins. in diameter and when entire was over 40 ft. in height, thus weighing nearly 200 tons. As the kind of stone from which they have been carved is said to be unavailable within 100 miles of Sondni the magnitude of the task of moving such a heavy mass of rock over uneven country for such a long distance in an age innocent of mechanical appliances is amazing.

MIRKABAD. See Mungaoli.

MORAR. See Gwalior.

MORENA. Headquarters of the district of the same name (formerly Tawargarh district), Morena is a considerable market town with a mandi (controlled market), and a regular water supply. A scheme for electrifying the town has been drawn up.

MUNGAOLI. A town on the left bank of the Betwa River in Guna district, Mungaoli was founded by the Chandel Rajputs and was long known as Idrasi or Indrasi. Later it received the name of Mungavali or Mungaoli from Munga Shah, a Muhammedan saint, who lived there. About a mile away from Mungaoli is Mirkabad the settlement for the Moghia criminal tribe.

Mungaoli's importance as a grain exporting centre grew considerably after the opening of the Bina-Baran branch of the G.I.P.R. and today the town has a mandi (controlled market). Mungaoli's municipality was instituted in 1904.

NARWAR. This town is 16 miles by road north-east of Satanwara station on the Gwalior-Shivpuri section of the Gwalior Light Railway. Satanwara (D.B.) is on the Bombay-Agra road, 63 miles south of Gwalior. The Satanwara-Magroni road, on which Narwar stands, crosses the Sind River by two massive Moghul bridges. The old road from Delhi to the Deccan passed through Narwar. The town has a travellers' resthouse and there is a dak bungalow on the fort.

Narwar is the traditional capital of Raja Nala of Naishadha, whose love for Damayanti, related in the *Mahabharata* is familiar. The place is mentioned as Nalapura (Nala's town) in a number of medieval Sanskrit inscriptions which have been found in and around Narwar.

The history of Narwar can be traced back to the 10th century when along with Gwalior it fell to the Kachhwaha Rajputs. They were succeeded by the Parihars in 1129 who held possession till 1232 when they were expelled by Altamsh. The fort of Narwar is mentioned again in 1251 when Chahada Deva surrendered it to Nasir-ud-din. After the Timur invasion Narwar was held by the Tomars until 1507 when it was taken by Sikander Lodi after a year's siege. He gave the fort to Raj Singh a Kachhwaha, thus restoring it to its original owners. Under Akbar it was the headquarters of the Narwar sarkar in the subah of Malwa and Abul Fazal writes of ancient Hindu temples then still to be found in parts of the fort. Except for a short period during the reign of Shah Jahan,

the Kachhwahas held Narwar as feudatories of Delhi until the 19th century when it was taken by the Scindia. Of the Hindu and Jain temples nothing now remains except one or two traces of shrines near the Hawapaur Gate of the fort and a collection of more than 100 Jain Tirthankars in a cellar in the town.

THE FORT, about 500 feet above the surrounding country, is on the steep scarp of the Vindhyas and 1,600 feet above sea level. It is about five miles in circumference. The level top, surrounded by a wall, is divided by cross walls into four ahatas or enclosures known as Maj-loka, Madar-ahata, Gujar-ahata and Dhola-ahata. Nowadays there are two approach roads to the fort, one on the east through the town, and the other on the west. The eastern road has recently been improved and passes through a number of gates, the uppermost of which, the Hawapaur, was built in the time of Maharaja Daulat Rao Scindia. This road leads into the Maj-loka, the central enclosure. The eastern portion of this enclosure is studded with extensive ruins of palaces most of which were built by the Rajput rulers of Narwar during the past three or four centuries.

Judging by these remains it seems likely that in the flourishing days of Hindu rule, Narwar fort was second only to Gwalior in magnificence. The architecture of the remains is Rajput in style with flat ceilings, fluted columns and multifoil arches. There were decorations of plaster, paint and glass pieces. A portion of what is known as the Kacheri Mahal has been repaired in recent times and converted into a dak bungalow. Perched on the eastern edge of the fort, it commands a spacious view of the Sind valley.

Other buildings of note in this group of Mahals are the Ladau Bungalow and the Chhip Mahal, so-called on account of the chhip or large monolithic cistern built into its terrace and probably used as a bath.

Of the tanks on the fort the most interesting is the Makaradhwaja Tal which is surrounded by a massive retaining wall and ghats. It is now dry. There are however numerous wells sunk in its bed and they yield a supply of water.

The largest of the fort mosques is that of Sikander Lodi near the Kacheri Mahal. There is also the tomb of Madar Shah, a Muhammedan saint. A Roman Catholic chapel with a cemetery stands on the fort. In the cemetery are a number of ruined tombs of European gunners who were employed by the Rajas of Narwar in the 17th century.

Below the fort and a mile to the north of the town stands the Jait Khamba, a pillar bearing an inscription recording the genealogy of the Tomara kings of Narwar and Gwalior. Close by is the sati monument to the two wives of Prahlad Das, the Brahman family priest of Raja Gaja Singh, one of the Kachhwaha Rajas, who accompanied the Raja to the

Deccan and was killed in battle there. On hearing of his death the wives burnt themselves together with his scarf. There are tombs of Armenian priests about a furlong south-west of the Jait Khamba pillar and near the rest house in the town.

Narwar formerly produced a considerable quantity of crude iron, smelted from the magnetic iron ore abounding in the neighbourhood. But owing to large scale production of iron both abroad and in other parts of the country this local industry is now non-existent.

NIMACH. Situated in Mandsaur district, Nimach is on the Ajmer-Khandwa section of the B.B.&C.I.R. The town is 1,613 feet above sea level. It is an important market centre of the State and Nimach's chief exports are limestone, grain, opium and cotton. During the early 19th century the town was the centre for operations against the predatory bands of Pindaris. In 1822 it was made the headquarters of the combined Rajputana-Malwa political charge under Sir David Ochterlony who was Resident till 1825. The Residency, which is now used as a club, was built during this period.

OLD GWALIOR. See Gwalior.

PACHHAR. Also known as Takneri, Pachhar is on the Bina-Kotah branch of the G.I.P.R., and is a growing centre of trade with a mandi (controlled market) and dak bungalow. It is the station for Kadwaha, site of important 10th and 11th century archeological remains, which is 32 miles distant, *via* Isagarh.

PADHAVLI. A village four miles by cart track west of Rithora (Kalan) station on the Gwalior-Bhind section of the Gwalior Light Railway. According to tradition, Padhavli flourished at the same period as the neighbouring town of Kotwal (six miles N.W.) or ancient Kantipuri, one of the three capitals of the Nagas who ruled this part of the country in the 3rd and 4th centuries A.D. No monument or epigraphic record has been found to support this tradition, but numerous ruins of temples, wells and memorial pillars of the medieval period (800–1200 A.D.) prove that Padhavli certainly did have a period of greatness.

THE GADHI'S inner enclosure, which stands a few hundred yards to the north-west of the village, is built on an earlier platform which originally supported a large temple with a number of attendant shrines. A portion of the north face of the platform is still exposed to view. The

Gadhi, of much later date than the temple, is said to have been built by the Jat Ranas of Gohad about 200 years ago, when the temple had already fallen into decay. The temple shrine still stands in a much ruined condition, but the idol, the sikhara and the door frame have been lost. The prominence given to images of Shiva among the surviving sculptures would seem to indicate that the temple was dedicated to that god.

Panels of sculpture which adorned the faces of architraves and friezes in the temple's interior are among the most interesting of the remains. The subjects include gods and goddesses and scenes from the *Ramayana* and the *Bhagavata*. Remnants of two of the attendant shrines are found in the north-west and south-west corners of the Gadhi. In the absence of any contemporary inscription the temple may be assigned to approximately the 10th century A.D.

THE CHHAU KUA, or covered well is nearly a furlong to the west of the Gadhi. Attached to the well is a small ruined shrine of about the 8th or 9th century. The shrine is now empty, but a worn sculpture of a mother goddess with child placed against the platform of the well, may or may not be contemporary with the shrine. The well roof is certainly a later repair.

To the west of the village there are ruins of a few Jain shrines with sculptures on the western face of a hill and on its summit.

THE BHUTESVARA OR BATESVARA VALLEY is about three-quarters of a mile to the south-west of Padhavli. A confused assemblage of ruins of Shiva and Vishnu temples, many of them small shrines, stud the whole of the valley. The largest standing temple is the only shrine still used for worship. It is known as the Bhutesvara or Batesvara Mahadeva temple from which the valley derives its name.

The side walls of most of the small shrines are single slabs placed on edge, the porticos resting on two advanced pillars. These shrines are covered with flat roofs consisting of single slabs, but they had been crowned with small spires which have now disappeared.

In the midst of these shrines is a small square tank or step well, probably of the same period as the temples. It has, however, been repaired in later times, old images having been built into the retaining walls.

PARBATI RIVER. The Parbati, a tributary of the Chambal, rises in the Vindhyas at the village of Makgardha and flows north either through or along the borders of Bhopal, Gwalior, Narsinghgarh and Rajgarh in Central India and Tonk and Kotah in Rajputana. After a course of 220 miles it joins the Chambal at Pali Ghat in the north-east corner of Kotah.

For eight months of the year the stream is continuous with a very great volume during the rains. During the rest of the year the Parbati bed is dry except for deep reaches and pools. The river's only important tributaries are the Sip, Sarani and Parang from the east and the Andheri from the west.

PAWAYA. Identified as the site of the ancient city of Padmavati, Pawaya is a small village 4½ miles by cart track from the Dabra-Bhitarwar road. The cart track leaves the road in its ninth mile (See Dabra). Pawaya is at the confluence of the rivers Sind and Parvati and has been identified as the site of Padmavati, one of the capitals of the Naga Kings in the 3rd and 4th centuries A.D. The environment of the city is vividly described by Bhavabhuti, the famous Sanskrit poet, in his play *Malti Madhav*. The site is studded with fragments which range in date from the 3rd to the 8th centuries A.D. Excavations have revealed the large platform of an ancient brick temple, and Naga coins, terra cotta figures and stone sculptures dating from the Gupta period (circa 400 A.D.) which were found here are now preserved in the Archeological Museum at Gwalior.

A FORT, in ruins now and said to date from the Paramars who ruled here in medieval times, is picturesquely situated in the fork of the Sind and the Parvati. There are few ruined Muhammedan tombs in the neighbourhood of the village.

THE TEMPLE OF DHUMESVARA MAHADEVA, about two miles to the west of the site of the ancient city, is said to have been built by the Bundela Raja Birsingh Deo of Orchha in the early part of the 17th century. The temple is a fair example of Bundela architecture and occupies a very picturesque site overlooking a waterfall on the River Sind. Contemporary with this temple is a spacious open platform, built on rock in the bed of the river and just above the waterfall. Here visitors can enjoy the view of the river at its best.

RAJPUR. A village with a late Buddhist stupa, Rajpur can be reached from Basai (W.R.) on the G. I. P. R., *via* Pichhor (D.B.). Pichhor is 18 miles by metalled road from Basai, and Rajpur is 20 miles by cart track south-west of Pichhor.

The stupa, known locally as Kuthila Madh, is built of plain rubble masonry and consists of a hemispherical dome superimposed on a tall drum. Its shape suggests a late date (9th or 10th century A.D.). No epigraphical record or sculptural decoration has been found.

A mile to the north of the stupa lies the deserted site of Buddhon, a name which suggests associations with Buddhism, which lingered late in this part of India.

RANOD. Once a centre of Shiva worship and a town of importance, Ranod is to-day a decaying village. It is 10 miles by cart track from the village of Khatora on the Deharda-Isagarh road which leaves the Bombay-Agra road near Deharda. From Shivpuri, Ranod can be visited *via* Kolaras (D.B.), a journey of 15 miles by metalled road and 20 miles by cart track. Ranod lies 43 miles from the G. I. P. R. at Basai, *via* Pichhor, a journey of 18 miles by metalled road and 25 miles by cart truck.

Ranod village was a place of importance until about the 18th century. It was granted in the time of Jahangir to Chaudri Chintaman Bakkal, whose descendants still hold the sanad. During the Maratha invasion the place decreased in importance, and after it fell to the Scindia in the 19th century it decayed rapidly. The village is enclosed by a high wall pierced by four gates.

During the medieval period Ranod's importance as a centre of Shiva worship led to the foundation of a number of temples and at least two monasteries. It was also of importance during the Muhammedan period as is proved by the ruins of mosques, tombs and wells belonging to that period in the neighbourhood of the village.

KHOKHAI, the most remarkable of Ranod's remains, is nowadays used as a temple though it was originally a monastery of Shaivite ascetics. It is constructed of massive sandstone blocks without mortar, and is roofed with huge slabs of the same material. A large Sanskrit inscription carved on it, states that the monastery was built by Purandara, a religious preceptor of King Avantivarman and was extended by Vyomasiva, a disciple in the fourth generation from the original builder. It is recorded that Vyomasiva also built the tank Chopda, which is still be be seen in front of the monastery, and around it a number of temples. These no longer exist. The inscription is undated, but on palæographical grounds it can be assigned to about the 10th century A.D. It evidently belongs to the time of Vyomasiva, and allowing an average of 25 years for each generation, the original builder and building would be about a century earlier.

The inscription gives Ranipadra as the ancient name of the place; and also gives a number of ancient place names such as Upendrapura, Mattamayura, Kadambaguha and Terambhi, the last two of which may be identified with modern Kadwaha and Terahi, which are in the neighbourhood.

The line of Shaivite ascetics to which the builders of this monastery belonged seem to have been very influential. They have left inscriptions at a number of places, including Sylhadoni near Lalitpur, Bilhari near Jubbulpore, Chandraha near Rewa, and another inscription now in the Archeological Museum at Gwalior. Monasteries very similar to Khokhai are to be found at Surwaya, Kundalpur, Kadwaha and Terahi in this part of the country and are probably the work of the same line of ascetics.

THE NAGA DEVA IMAGE is a fine piece of sculpture representing two large cobras coiled round each other. It stands on the bank of the Airapat River a short distance south of the village.

JHINJHIRIA MASJID, so-called from the Jhinjhiri or perforated stone screen which encloses its graveyard, is a small well built mosque now deserted and dilapidated. It stands a few hundred yards to the west of Khokhai. There has also survived a grave stone belonging to a tomb known as the Chaharun-bibi-ka-Roza on the south of the village. The only feature of interest is its design—that of a bedstead.

SABALGARH. Headquarters of the tehsil of the same name in Morena district, Sabalgarh is on the Gwalior-Sheopur line of the Gwalior Light Railway. As a mart of importance in the State Sabalgarh has been provided with a mandi (controlled market). For centuries the town has been noted for its wood carving and lacquer work which includes such articles as chessmen, scent containers and beautifully coloured bedstead legs. A certain amount of metalwork is also manufactured there.

The town was founded by the Gujar, Sabala, and the present fort was built by Raja Gopal Singh of Karauli. The place remained in the hands of the Karauli chiefs until 1795 when it was taken by Khande Rao Inglia. In 1809 Jean Baptiste Filose took it for the Scindia.

SHAJAPUR. Headquarters of the district and tehsil of the same name, Shajapur was founded by Shah Jahan who stayed here in 1640 during one of his visits to Malwa. The present name of the town is a corruption of Shahjahanpur. The town is an important market centre and has a mandi (controlled market) and a State maternity home.

SHEOPUR. Headquarters of the district and tehsil of same name, Sheopur is a terminus of the Gwalior Light Railway. It is said that the town and fort were founded in 1537 by Gaur Rajputs and that it takes its name from a Saharia who was sacrificed to ensure the permanency of the settlement. His descendants still hold an hereditary grant of land in the neighbourhood.

When Akbar advanced on Chitor in 1567 Sheopur surrendered to him. In 1808 this district fell to Maharaja Daulat Rao Scindia who granted Sheopur and the adjoining tract to Jean Baptiste Filose. He immediately occupied his jagir and invested Sheopur fort but was unable to take it by storm. Subsequently the Gaurs were starved out and they removed to Baroda town (in the same district) in 1809. Sheopur fort

then became Filose's home, but five years later it was seized with his family by Jai Singh Khichi of Raghugarh whose territory Filose was ravaging. It was returned later to Filose.

Sheopur is famous for its coloured lacquer work on wood—a craft of long standing in the town. Manufactures include bedstead legs, scent containers and chessmen. Playing cards are also manufactured there.

The town has been provided with a water supply and also a mandi (controlled market).

SHIVPURI. The summer capital of the Gwalior Durbar, Shivpuri lies 1,315 feet above sea level in the hills 73 miles south-west of Lashkar. It was once a small cantonment with an old town close by. Towards the end of last century, however, Maharaja Madhav Rao had the place surveyed and decided to establish his seat of government here during the summer months. The Palace, originally a block of three barracks handed over to the Durbar along with other military buildings in 1896, was converted into a palace at a cost of Rs. 6 lakhs in 1901.

His late Highness spent much money and personal time in making Shivpuri attractive to all. Roads were cut through virgin forests, over hills, across streams and along the banks of artificial lakes which were thus brought within reach of tourists.

In order to accommodate the State Government during the hot weather a Secretariat building has been erected near the Palace with bungalows for officers in suitable places. A number of Sardars have also built their own summer residences at Shivpuri.

The climate is excellent and during the monsoon the temperature of Shivpuri is about the same as that of other hill stations below 4,000 feet elevation.

There is ample social life in Shivpuri and those wishing to make a prolonged stay can rent a furnished bungalow at moderate rates. As Shivpuri is on the Bombay-Agra road an excellent hotel caters for those wishing to make a short halt.

SOCIAL CENTRES in Shivpuri include the Madho Club, the Golf Club and the Yacht Club. The Madho Club is well fitted up with library, billiard room, a polo ground and lawn tennis and Canadian tennis courts. A concert is given by the State Band each week.

The Golf Club has an excellent 18 holes course at Chandpatha, five miles from Shivpuri on the Jhansi road. A small club house has been built overlooking the course and the Sakhya Sagar. Persons wishing to stay in the club should apply to the Honorary Secretary,

Madho Club, Shivpuri, for permission to do so. The golf course is open at all times on payment of a nominal fee.

The Yacht Club has its headquarters on Sakhya Sagar, an extensive artificial lake amid beautiful scenery. House boats, motor launches and boats and sailing boats are kept for members and their friends.

Every form of sport is available in Shivpuri : Tennis, boating, golf, polo, shikar, fishing and swimming.

TRANSPORT problems have been solved by the Gwalior Light Railway line which connects Shivpuri with Gwalior and by motor services. There is telephone communication between Shivpuri and Gwalior with, of course, a telegraph office and State post office. The town is electrically lit and a good water supply was recently completed. There is also a hospital and State maternity home, and as Shivpuri has also become a place of considerable trade—especially in forest produce—since the opening of the railway, a mandi (controlled market) has been established.

LAKES abound around Shivpuri and several tank projects are still being planned. The principal lakes are the Sakhya Sagar, the Jadhav Sagar and Bhagora on the Jhansi road, and the Bhoorakhoh on the Rai Singh road in the midst of heavily forested hills. All these lakes afford excellent fishing and boating and yachting. Mahseer abound in the River Sind and two points on this river—one at the 10th mile on the Satanwara-Narwar road, and the other, Mitloni, at the 16th mile on the Jhansi road—are easily accessible.

GAME of all descriptions is plentiful around Shivpuri, including partridge, grouse, quail, hare, wolf, chinkara, black buck, sambhar, nilgai, bear, panther, tiger and hyena. Only a very small portion of the district is closed entirely to shikar and special permission is required only for tiger, sambhar and bear in certain areas.

Shivpuri abounds in natural springs, and one of these, the Bhadya Kund has been conserved for the public. Its analysis proves it to be a table water equal to Apollinaris and similar spring waters found in Europe. Being naturally carbonated and free of all injurious mineral deposits, it is recommended by doctors in cases of gout, rheumatism and constipation. It is in demand in Bombay and other large towns in the country.

THE CHHATRI OF MAHARANI SAKHYA RAJA was built by Maharaja Madhav Rao on the spot where the remains of his mother were cremated. The building which cost Rs. 5½ lakhs was

completed in 1931. It is approached by a fine gateway and is surrounded by a well laid out garden.

The small tank in front of this chhatri is the Mohan Kund and was in existence before the construction of the chhatri. Near it is a furnished bungalow for pilgrims who come to visit an ancient Hindu temple on the borders of Banganga Park.

THE CHHATRI OF MAHARAJA MADHAV RAO, a gleaming white marble cenotaph, has been erected on the side of the Mohan Kund near the chhatri of Maharani Sakhya Raja. Soon after the Maharaja's death in 1925 his wish that a chhatri be raised opposite his mother's statue, in proof of his filial devotion, was carried out. At the same time it was decided that this chhatri should commemorate the remarkable work done by the late ruler during the 30 years of his reign.

The chhatri took 6½ years to build, a comparatively short period in view of the immense amount of delicate pietra dura work which decorates it.

On entering the chhatri enclosure by the gateway already mentioned, the visitor finds himself in a wonderful Moghul garden. Ahead are the marble steps which lead to Maharaja Madhav Rao's chhatri on the left and Maharani Sakhya Raja's chhatri in front. The Maharaja's chhatri occupies a space 90 feet long and 40 feet broad and consists of a sikhara, or principal tower above the sanctum, a jogmohan, or dais, and a sabha mandap, or hall of audience.

Inlay and mosaic work are freely used on the bases, shafts and capitals of the pillars, on the aisles and walls, while the ceiling is covered with gold work. The design and workmanship are so exquisite that it has been said that this is the finest work produced since the Taj Mahal was completed at Agra.

The traceries and creepers on the brackets and cornices on closer examination reveal intertwinings of the flowers which denote purity, piety, modesty and the other noble virtues. The colonnade of the hall is most imposing and sculptured niches on the sides of the sanctum, silver doors and electric chandeliers add to the charm of the whole chhatri.

AROUND SHIVPURI there are a large number of places of interest. For example, Appaji's Cottage is a charming spot where a picnic shelter stands near a small waterfall. It is 12 miles from Shivpuri —seven miles along the Shivpuri-Gwalior road and about five miles off the main road.

Hill and jungle scenery can be seen at its best along Rai Singh road and Croft road. The distance is approximately 17 miles from the junction of Rai Singh road with the Jhansi road below Sakhya Sagar and the junction of Croft road with the Gwalior-Shivpuri road about six miles from Shivpuri. The whole of this drive is through virgin

jungle, through valleys and across streams with fine water-scapes in places. At intervals along this road the jungle has been cleared and small houses built so that one may stop and rest awhile under shady trees.

Narwar with its interesting old Muhammedan fort is 27 miles from Shivpuri, being connected by a pucca road to the main road at Satanwara. The river Sind is crossed at about the tenth mile where a more picturesque valley cannot be imagined. The old fort of Surwaya is at mile 11 on the Shivpuri-Jhansi road. Twenty miles along the Shivpuri-Sheopur road stands Pohri, a town of great historical interest.

Shivpuri itself has quite a considerable history. The Emperor Akbar stopped here in 1564, on his way from Mandu, to hunt elephants, and it is recorded that the whole of a large herd was captured. In the 17th century the district was given in jagir to Amar Singh, the Kachhwaha ruler of Narwar. But he joined Prince Khusru's revolt and was dispossessed. Later the Shivpuri and Kolaras districts were restored to the family and his grandson Anup Singh also received Narwar. The area was taken by the Scindia in 1804.

SHUJALPUR. Headquarters of a tehsil in Shajapur district, Shujalpur was founded by a Jain merchant and called after him, Rai Karanpur. One of the wards of the town still bears this title. The town's present name is due to its connection with Shujaat Khan, an active champion of Sher Shah who raised the place from a small village to a flourishing town. Shujaat Khan was locally known as Shujawal Khan, and though Mandu and Ujjain were his official residences as Sher Shah's governor of Malwa, he had a predilection for Shujalpur.

In 1808 the town fell to Karim Khan, the Pindari leader, as his jagir. It was restored to the Scindia in 1860. Not far from Shujalpur is the cenotaph of Ranoji Scindia, the great soldier and founder of the Ruling House of Gwalior. He died near here in 1745.

Shujalpur is on the Ujjain-Bhopal railway and has a mandi (controlled market). An efficient water supply has been planned for the town.

SIND RIVER. One of the largest rivers in Central India the Sind has its nominal source in a tank 1,780 feet above sea-level in the village of Nainwas in the Sironj pargana of Tonk State. The first 20 miles of its course is through Tonk and it is crossed by the Bina-Guna section of the G. I. P. R. near Pagara. The Sind then enters Gwalior which it does not again leave during its course through Central India. It forms the boundary between Gwalior and Datia during the northerly part of its course. After a course of 250 miles the river enters the United Provinces near Jagmanpur and finally joins the Jumna about 10 miles further north.

For the first 130 miles of its course the Sind is only a moderate stream, but near Narwar it begins to widen and soon becomes a large river. It is fed by numerous tributaries. The Parbati and Mahuar join it, on its west and east banks respectively near Parwai; and 10 miles further north the Nun comes in, the Saon and Besli entering another 70 miles further on and the Kunwari and Pahuj, two large streams, 22 miles above them.

The Sind has a continuous stream throughout the year on most of its course, but owing to high, rocky banks it is as a rule unsuited for irrigation purposes. In the rains it is apt to rise with great suddenness, causing serious floods. Between Kolaras and Narwar, the river flows through magnificent scenery, winding among hills covered with thick jungle down to the water's edge.

The origin of the Sind's name is not known, but a river called the Sindhu is mentioned in the Vishnu Purana, and it may be this stream.

SIPRA RIVER. Also known as the Kshipra or Avanti Nadi, the Sipra rises in Malwa, its nominal source being on the Kokri Bardi hill near the small village of Ujeni, 12 miles south-east of Indore. One of the most sacred rivers in India, it passes the great pilgrim centre of Ujjain after a course of 54 miles. At this point it is lined with ghats and temples, many of them of very considerable antiquity. On an island in the stream near Ujjain is the famous Kaliadeh water palace.

The general direction of the Sipra is north-west but it takes a very sinuous course—the Mhow-Mehidpur road crosses it three times in 26 miles. However, a good deal of its course is through the broad, rolling Malwa downs where its waters can be used for irrigation.

Thirty miles beyond Ujjain the Sipra passes Mehidpur and after flowing for 120 miles through Indore, Dewas and Gwalior, it enters the Chambal near the village of Kalu-Kheri.

Every mile of the Sipra's course is marked with sacred spots, the haunts of rishis and the scenes of miracles. The river is said to spring from the blood of Vishnu and, as in Abul Fazal's day, it is still believed to flow with milk at certain periods.

Throughout its course the river's bed is of hard, basaltic trap, and the channel is shallow, thus causing liability to floods and damage to villages along the banks. In the hot weather the stream ceases entirely, but there are deep pools here and there.

SONDNI. This village lies three miles to the south-east of Mandsaur, the nearest railway station for Sondni and the Pillars of King Yasodharman. An approach road branches off the Mhow-Nimach road about two miles south of Mandsaur and leads to these monuments. Mandsaur dak bungalow is not far from this junction. (See Mandsaur.)

SUHANIA. Though now a decaying village Suhania seems to have been a flourishing town in medieval times. It possesses a number of ruins of temples, both Hindu and Jain, dating from the 10th to the 12th century and covering an extensive area.

Suhania is 20 miles south-east of Morena on the G. I. P. R. It can be reached by travelling 10 miles along the Morena-Mehgaon road to Badegaon where a cart track branches off to Suhania, 10 miles away. Another route to Suhania is from Nonera station on the Gwalior-Bhind line of the Gwalior Light Railway, whence it is 10 miles to the north-west by cart track.

The principal existing monuments at Suhania are the Kakanmadh, the Ambikadevi temple, the image of Hanuman, a monolithic pillar and a large sculpture of a Jain Tirthankar.

THE KAKANMADH TEMPLE, by far the largest and most important of Suhania's monuments, is two miles north-west of the village. Dedicated to Shiva, the temple is locally known as Kakanmadh because it is supposed to have been built by the order of a queen named Kakanavati. It is not known, however, whether this queen was an historical person. The temple bears no contemporary inscriptions, all the existing epigraphs being merely pilgrims' records.

However a verse in a Sanskrit inscription on the Sas Bahu temple in Gwalior Fort records that Kirtiraja, a Kachhwaha king of Gwalior who reigned about 1000 A.D., erected a large temple of Shiva at Simhapaniya. It is thought that Simhapaniya is the ancient name of the place, of which Suhania is the modern, corrupted form, and that the temple of the inscription is the Kakanmadh temple. Kakanavati, after whom the temple is supposed to be named, was possibly a queen of Kirtiraja.

The temple was constructed on a spacious platform which is now ruined and buried in a mound of earth. The main building was surrounded by a set of attendant shrines of which only the slightest traces are now left.

The pyramidal roof of the sabha mandap is supported on tall, majestic pillars and the whole exterior of the temple was once covered with fine sculptures, some of which are still in position. The shrine is surmounted by a lofty sikhara (now stripped of its sculptured facing) which rises to a height of nearly 100 feet and is visible for several miles.

THE OLD TEMPLE OF AMBIKADEVI, which has been repaired and added to in later times, and the monolithic pillar are on the western outskirts of the village. The large image of Hanuman stands in the ruins of an old temple which once housed it, about a quarter of a mile to the north-east of the present village.

The Jain sculpture, which is locally known as Chaitnath, stands a short distance to the south of the monolithic pillar.

SURWAYA. There are a number of interesting archeological remains in the small ruined fort at Surwaya, a village on the Shivpuri-Jhansi road, about 11 miles east of Shivpuri. There is a dak bungalow at Surwaya.

THE FORT, though of small importance in itself, encloses a Hindu monastery, three Hindu temples and a step well. No inscriptions have survived to give the exact date of construction or the names of the builders, but from the style of architecture and sculpture they may be placed approximately in the 10th century A.D. Differences in ground level show that the fort is a much later structure than the religious monuments which it encloses.

THE MONASTERY is a massively built edifice occupying the south-east part of the fort enclosure. Comparison with other structures in the neighbourhood, the purpose of which is known from inscriptions, shows that this must have been a monastery.

THE TEMPLES seem to have been constructed as adjuncts to the monastery. Three of them have survived in a ruined condition, but it is evident that originally the number of these attendant shrines was greater. Of the survivors all have lost their sikharas and one has been deprived of the sculptured facing of its walls as well.

They would seem to have been dedicated to Vishnu as the image of that god is carved on the central block of each of their doorways. The Shiva linga enshrined in temple No. 1 is apparently later work. The carving on the pillars and ceiling of the porch and on the door frame of this temple is remarkable for its extreme fineness.

TAKNERI. See Pachhar.

TERAHI. A centre of Shaivism in medieval times, Terahi village is five miles north-east of Kadwaha and eight miles south-east of Ranod by cart track. Terahi, the modern name, is apparently a corruption of Terambhi, a place name found in an old Sanskrit inscription at Ranod.

THE TORANA (gateway) of an 11th century temple dedicated to a goddess locally known as Mohajmata, is perhaps the most interesting of the monuments to be seen in Terahi. The temple is now a ruin, but

the gateway is in almost perfect preservation with its brilliantly carved panels of figures. Though somewhat heavy at the top, it is none the less a beautiful specimen of a decorative gateway of the medieval period.

A MEMORIAL PILLAR lying in the temple compound commemorates a warrior who was killed in a battle on the banks of the Madhumati (modern Mahuwar) river in the neighbourhood in 903 A.D. Two more memorial pillars which record the deaths of soldiers in still earlier battles (circa 7th century A.D.) stand just outside this compound.

A HINDU MONASTERY of the medieval period is enclosed in the ruins of a comparatively modern fort in the village. Near the monastery there is a Shiva temple of about the 11th century. It is in a fairly well preserved state but is partially concealed below ground level.

Among other relics a large Shiva linga with eight faces carved on it, a large image of Ganesh, and a fine Jain Chaumukh are to be found in the jungle on the south of the village.

TUMAIN. Anciently known as Tumbavana (the Pumpkin Grove), according to Sanskrit inscriptions, Tumain is today a growing centre of trade six miles by cart track to the south-east of Takneri (Pachhar) station on the Bina-Kotah section of the G. I. P. R. It has a dak bungalow.

An ancient sacrificial site is near the village, and there are the remains of two or three small cave cells excavated in laterite.

A number of interesting fragments of sculptures and architectural relics ranging in date from the 5th to the 12th century A.D. are in many cases either built into, or stored in, the modern houses and temples of the village. Others are found lying loose outside. Among the former is a finely carved door frame and among the latter are a carving of Balarama, pieces of a beautiful torana archway of a 10th century temple and a huge sculpture of a Jain Tirthankar known as Baitha Deva.

The modern temple of the goddess Vindhyavasini is built on the site of a 9th century temple in the village. The shrine, carved doorway, the pillars of the verandah and many other sculptures now built into the walls are vestiges of the old temple.

The site promises fruitful results if excavated and it has already supplied the Archeological Museum at Gwalior with a good many specimens of sculpture and above all with an interesting inscription of Gupta Samvat 116 (435-36 A.D.)

UDAYGIRI. An ancient site near Bhilsa which is important on account of its rock-cut caves and Buddhist remains. The records found here are interesting as giving the date of the conquest of Malwa and Gujerat by Chandragupta II of Maghada. See Bhilsa.

UDAYPUR. Today a small village, Udaypur was a place of considerable importance in the medieval period. It lies four miles by metalled road to the east of Bareth station on the G. I. P. R. line between Bina and Bhilsa. It can also be visited from the next station, Basoda (W.R. and D.B.) whence it is about eight miles by cart track.

Remains of both Hindu and Muhammedan periods are found here. The old market square has colonnaded sides and the fort wall is pierced by several gates, some Hindu and some Muhammedan. The principal structures are the temple of Udayesvar or Nilkanthesvar Mahadeva, the Bijamandal or Ghadiyalan-ka-makan, the Bara Khambi, the Pisnari-ka-mandir, the Shahi Masjid and Mahal and Sher Khan's Mosque.

THE UDAYESVAR TEMPLE is built of fine red sandstone profusely carved. One of the many old Sanskrit inscriptions on this temple records that the Paramar king Udayaditya of Malwa founded a town, built a temple of Shiva, excavated a tank and designated all the three works by his own name: Udayapura, Udayesvara and Udayasamudra. The town and the temple still exist and the ruins of the tank Udayasamudra can be seen at a short distance to the north-east of the town. It is further known from two other inscriptions on this temple that construction was commenced in 1059 A.D. and that the flag staff was erected in 1080 A.D.

The temple stands in a spacious courtyard on a lofty platform. It is enclosed by a dwarf compound wall the outer face of which was decorated with carving. A line of stone seats furnished with back rests ran along the inner face of the enclosure wall. The compound was probably pierced by four entrances, one at each of the cardinal points, the principal entrance being on the east towards which the temple faces. Each entrance was a flight of steps guarded on either side by a figure of a dwarapala, or doorkeeper. All the entrances except the principal one are now closed up.

Eight attendant shrines surround the temple. Of these at least six were crowned with spires and sheltered subsidiary idols. Two of the shrines have disappeared while the rest are in various stages of ruin. The shrine in front of the main temple is a square room which probably had a pyramidal roof. It is locally known as Vedi, but the exact purpose for which it was intended is uncertain. It may have been used for the recitation of the Vedas or it may have been a sacrificial room (the Sanskrit word Vedi can mean an altar) or else it may have been intended to shelter an idol of Shiva's bull (Nandi) which no longer exists.

In a corresponding position at the back of the temple was either a similar Vedi or an ordinary attendant shrine. It has, however, been removed to make room for a mosque.

The main temple consists of a garbha-griha or shrine room, a sabha mandap or hall and three pravesa mandaps or entrance porches on three

sides of the hall, the main porch being on the east. A large Shiva linga set on a high pedestal is worshipped in the shrine. This linga is covered with brass, a face being worked in relief on the front. An inscription on this cover states that it was presented by Mahadji Scindia's general Khande Rao Appaji in 1775 A.D. The shrine doorway is magnificently sculptured.

The Nandi which occupies a low dais in the middle of the hall is evidently comparatively modern, judging by the weakness of its modelling. The pillars and seats in all the porches are covered with Sanskrit inscriptions. Some of these have historical interest. The rest are merely pilgrims' records.

On the exterior of the temple is a profusion of carving in which of course the figures of Shiva and his consort Durga predominate. The sculptures also include the other gods and goddesses of the Hindu pantheon with the eight Guardians of the Quarters placed in their proper positions. The hall and porches are surmounted by low pyramidal roofs while the shrine is crowned with a tall and beautifully proportioned sikhara. It is decorated with miniatures of itself set in vertical bands, together with medallions inset with figures of the gods.

A curious human figure which breaks the line of the spire's design near its pinnacle is variously interpreted as representing the architect who designed the temple or as that the royal builder on his way to heaven by virtue of the religious merit which he earned from having such a magnificent shrine constructed.

During the centuries which have passed since the temple was completed the figure sculptures have been mutilated and the temple roughly handled. Popular legend alleges that Aurangzeb was responsible for this, but it seems probable that Muhammed III, one of the Tughlak Sultans of Delhi, was the culprit since he built the mosque at the back of the temple with material from demolished shrines during the years 1336–38 A.D., a fact known from two Persian inscriptions relating to this mosque. The main building of the temple, however, escaped without serious damage.

The fully developed stage of Aryavarta or Indo-Aryan temple architecture is represented by the Udayesvara temple. Its proportioning is so admirable that despite the sturdy lines of the style, the complete building has no appearance of clumsiness. The red sandstone used in the building shows up its grandeur to excellent effect. The spire which is undoubtedly the most fascinating feature of this monument is perhaps unrivalled in beauty in the whole array of Indian temples.

Every part of the building has been carved with the greatest detail and delicacy and since the whole is in fairly perfect condition the temple is one of the very few examples of its type capable of giving an excellent idea of the style of medieval temple architecture in northern India.

BIJAMANDAL or Gadhiyalan-ka-makan is the remnant of a two storeyed house close to and probably contemporary with the Udayesvar temple. As its name suggests it may have been the house of the time keeper (clock man) attached to the staff of the great temple. An unfinished Sanskrit inscription on the building opens with praise of the Sun God and seems to corroborate the view that this was the time keeper's house.

BARA KHAMBI is the surviving portion of the hall (sabha mandap) of a ruined 11th century temple on the southern edge of the village. The hall is surrounded by raised seats and its ceiling is a massive slab.

PISNARI-KA-MANDIR, another ancient temple in the village, is popularly believed to have been built by a woman who gave the money out of her earnings from grinding flour for the workmen engaged on the Udayesvar temple. The story does not bear investigation however, because the style of architecture of the temple shows that it is of much later date.

SHAHI MASJID AND MAHAL. A large ruined mosque which stands about a furlong east of the great temple is locally known as the Shahi Masjid. A Persian inscription on it shows that its construction was begun in the reign of Jahangir and completed in that of Shah Jahan, in 1632 A.D. The remains of a large mahal or mansion, close to the mosque, probably represent the residence of the local governor in Moghul days. Some fine stone jali work is to be found in this ruined mahal which was built in the simple and elegant style of the early Moghul period.

In front of the mosque is a large platform on which are a number of tombs. The mosque and cemetery were evidently adjuncts of the mahal.

SHER KHAN-KI-MASJID stands outside the Moti Darwaza, the Eastern gate in the city wall. It is a small mosque with a graveyard on a raised plinth now in ruins. The architecture of the mosque is in the Mandu style and inscriptions both in Persian and Sanskrit refer to the construction of the building by an agent of Sher Khan in 1488 A.D. during the rule of Ghiyas Shah Khilji, Sultan of Mandu.

GHUDDAUD-KI-BAODI, a short distance to the east of the mosque, is a large step well which obtains its name from the flight of steps spacious enough for a horse to descend to the water's edge.

ROCK SCULPTURES in the neighbourhood of Udaypur include a huge, unfinished image of Shiva carved on a boulder. It is locally known as Ravan Tor. There is a panel of the Sapta Matrikas (Seven Mothers) in the side of an adjoining hill the shape of which resembles a Buddhist stupa.

UJJAIN. The traditional capital of Malwa in the centre of which it is situated, Ujjain, standing on the right bank of the River Sipra, has always been renowned for its sanctity. Today it is the chief city in the southern part of Gwalior State and of considerable importance as a trade centre in this part of Central India. It is served by the G. I. P. and B. B. & C. I. Railways which connect it to Ajmer, Khandwa, Bhopal, Rutlam and Godhra. It is linked to the Bombay—Agra road by branch roads at Maksi 20 miles east, Dewas 23 miles south, and at Indore 35 miles south-west. Ujjain is also connected to the Mhow-Nimach road at Badnawar, *via* Barnagar, 36 miles west.

The second largest city in the State, Ujjain has a population of 54,000 and is governed by a municipality, founded in 1898, which was among the first of its kind to be established in Gwalior. Modern water, drainage and electricity supplies have been provided and in recent years a considerable amount of money has been spent in extending them and improving their efficiency. The town has a mandi (controlled market), a State maternity home, a hospital, dispensaries and a number of educational institutions including the Madhava College which has classes up to the intermediate standard.

Ujjain is the scene of an annual agricultural exhibition which is of considerable importance as it forms a focal point for the spread of improved methods in Malwa, a famous agricultural area. There is also the Central Experimental Farm and Dairy Farm, run by the Agricultural Department.

As a centre for small industries the city has long been famous. Sandal oil distillation and the manufacture of thymol from ajwan are two of these industries. Combs, especially those sandalwood; rose water, agarbattis, dhup and saris are also made there.

An interesting feature of the commercial life of Ujjain is the Madhonagar Freeganj, a modern colony on the outskirts of the old city. The Freeganj was created to enable Ujjain merchants dealing with other parts of Central India to handle goods in transit without having to pay the State's import and export duties. These duties are only levied when goods actually passes into or out of Gwalior territory. These facilities have attracted merchants from practically every big town in the country and the residential part of the Freeganj has been laid out according to the latest ideas of town planning.

THE PRESENT CITY OF UJJAIN covers about two square miles and is rectangular in shape. Only a few traces are now left of the 15th century wall which formerly surrounded it. The old city, the Avantika of Sanskrit writers, was about two miles to the north of the present town, but was apparently destroyed by an earthquake or by a flood of more than ordinary dimensions. Traces of the old foundation foundations are still visible on the site. Coins, jewels, beads, seals and ornaments of an early age are found there during the rains.

The city which was founded after that disaster is divided into numerous wards, one of which is Jayapura near the Observatory which Maharaja Jai Singh of Jaipur erected when he was Governor of Malwa. Bohra Bakhal is an area of three wards mainly inhabited by Bohras, a Muslim merchant community among whom some of the principal merchants of the city are to be found.

The Kot ward, or fort, is on the elevated ground in the north of the city. In former days this area is said to have lain outside the old city and in the Mahakalban—the forest of Mahakal. Here is the temple of Mahakal built on the site of its famous predecessor which was destroyed by Altamsh in 1235. Near it is the palace which was the residence of Maharaja Daulat Rao Scindia before he founded Lashkar at the beginning of last century. Many of the Ujjain houses have fine carved balconies and fronts, but few of them are of any considerable size.

Religious fairs occur three times a year: at Shivratri and at the full moons of Baisakh (May), and Kartik (November). The great Singhast Mela takes places every 12 years.

HISTORY. Ujjain is one of the seven sacred cities of India, and does not even yield place to Benares in point of sanctity. Hindus regard Ujjain as having existed from the beginning of creation and according to the Tantras it is the Pithasthana at which the elbow of Sati fell when she was dismembered by Shiva. Hindu geographers took Ujjain as the first meridian of longitude, the meridian running through the idol in the ancient Mahakal temple.

In early days Ujjain was known as Avanti and the country around as Avantidesh. This name was in use as late as the 2nd century and is mentioned in an inscription of the 10th century. It is still employed by Brahmans for ritual purposes.

It seems likely that Ujjain was a place of importance for the Aryan tribes settled in Malwa, and by the time Buddhist literature came into existence the kingdom of Avanti was regarded as one of the four great powers of India. We have the romantic tale of the elopement of Vasuladatta, the daughter of King Pajjota of Ujeni with King Udena of the neighbouring realm of Kausambhi.

At one time there was at Ujjain a Buddhist monastery of considerable importance—the Southern Mount, which was the birthplace of Kachana, one of the greatest disciples of Sakyamuni.

From early days when Ujjain was the central mart for all goods entering by the west coast, the city was also the principal stage on the road between the Deccan and Sravasti, then capital of the great kingdom of Kosala.

The first mention in history of Ujjain comes with the rise of the Mauryan Empire and the appointment of the young Asoka as Viceroy of the Western Provinces. After that nothing is heard of the city till the 2nd century A.D. when it was the capital of the Western Kshatrap dominions under Chashtana. By that time its fame had spread far outside India and the Greek geographers make mention of it. Ptolemy (150 A.D.) for example, mentions Chashtana as Tiastenos of Ozene. A century later the author of the Periplus of the Erythrean Sea writes of Ozene as a noted trading centre dealing in onyx, porcelain, fine muslins, mallow coloured muslins, ordinary cotton cloths, spikenard, costus and bdellium. These were exported through Barugaza (modern Broach) near Surat.

After being in the hands of the Kshatraps for about three centuries. Ujjain passed to Chandragupta II of Maghada in about 400 A.D. There are grounds for supposing that the expulsion of the unorthodox Kshatraps and the revival of Brahmanism under the Guptas gave rise to the tradition of Vikramajit of Ujjain who may be regarded as the King Arthur of India and at whose court dwelt the nine gems of Indian culture.

In the 7th century Ujjain was included in the empire of Harshavardhana of Kanauj, but before the century was half spent Harsha died and this part of the country relapsed into anarchy.

With the rise of the Rajput clans in the 9th century, Ujjain passed to the Paramars and in the ensuing 300 years Ujjain and the Paramars become so closely identified that subsequent tradition has converted Vikramajit into a Paramar. During this period Ujjain was continually sacked by neighbouring rulers including the Gujerat Chalukyas, the Chedi Kalachuris, the Chandels of Bundelkhand, the Rashtrakutas of Malkhed and other Rajput clans.

At the end of the 11th century however, Paramar power declined and Ujjain apparently fell temporarily to the Tomars and Chauhans. In 1235 Altamsh appeared in Central India and after taking Bhilsa, marched on Ujjain. He sacked the city and destroyed the temples including the famous Mahakal shrine, renowned wherever the Hindu religion existed. The linga he took to Delhi.

From this time Ujjain remained a Muhammedan possession until the 18th century and during these 500 years it underwent a variety of changes—From 1401 to 1531 it was included in the kingdom of Malwa, but it was not the capital and therefore was not a town of great importance.

When in 1562 it fell to Akbar, Ujjain became the chief town of the subah of Malwa. In 1658 the battle in which Aurangzeb and Murad defeated Jaswant Singh of Jodhpur who was fighting for Prince Dara, took place not far from the city. The scene of the battle, Dharmatpur, was renamed Fatehabad by Aurangzeb. The cenotaph of Raja Ratan Singh of Rutlam who fell during the engagement still stands there. By 1733 Maharaja Jai Singh of Jaipur had become governor of Malwa in the regime of Muhammed Shah.

Ten years later Baji Rao Peshwa became deputy governor. The Maratha domininance over Central India had begun. Seven years later Ujjain finally passed to the Scindia and remained the capital of his dominions until 1810 when Maharaja Daulat Rao founded Lashkar. In 1799 Ujjain had been sacked by Jaswant Rao Holkar while the Scindia was in Poona.

None of these changes, however, affected Ujjain's importance as a religious centre and even though the capital was shifted to the northern section of Gwalior territories, Ujjain never sank completely into oblivion as a commercial town. There was an important revival between 1880 and 1897 when the railways were being built across Malwa, and today Ujjain is one of the most important mercantile centres in the State. Cotton, grain and sugar are among the commodities handled there, much of the trade being done with Bombay.

Ujjain has a number of monuments of outstanding interest. Some date from the medieval period, such as the Bhartrihari cave and the Chaubis Khamba Gate, while later buildings, include the Bina-nim-ki-Masjid, the Kaliadeh water palace, the Old Sarai, and Jai Singh's Observatory. Temples include the Mahakal, Gopal, Har Siddhi, and Chhatri Ghat. There are also the Ghats along the river front.

BHARTRIHARI CAVE is the remnant of an 11th century temple which seems to have been partially repaired in later times. The level of the land surrounding it has gradually risen, either owing to the debris of adjoining ruins or owing to silt from the river floods, and the remains of the temple have been partially buried, giving the interior the appearance of a cave. Judging by an old linga and fragments of carving, the original temple was probably dedicated to Shiva. Nowadays it is in the possession of the Mahants of the Natha sect.

CHAUBIS KHAMBA GATE is so called from the number of pillars which support its present roof. The original structure has been restored at a later period with old material as is evident from carved stones found built into the inner filling. It was possibly one of the gates in the outer compound wall of the medieval temple of Mahakal, a portion of which exists a few hundred feet to the west of this gate and is

traditionally known as the kot or fortification. By a curious development of religious tradition the images of the dwarapalas, door keepers, on the jambs of the gate are to-day worshipped as goddesses.

BINA-NIM-KI-MASJID, or the mosque without a foundation, is in the Anantpeth mohalla and not far from the river. Its name apparently originates from the fact that the mosque was constructed on the foundations and with the material of an old Hindu or Jain temple. The need for constructing new foundations specially for the mosque was thus obviated. Part of the porch of the original temple still exists almost intact and is in fact used as the entrance porch of the mosque. A Persian inscription over the entrance records the completion of the mosque in 1403 A.D. during the reign of Dilawar Khan Ghori, the first independent Sultan of Malwa.

KALIADEH WATER PALACE is picturesquely situated on an island in the River Sipra, about six miles by metalled road north of Ujjain City. In pre-Muhammedan days the island was known as Brahma Kund and had a bathing ghat on the river and a large temple on its bank. The carved stones of these old buildings have been incorporated in the massive bridge which crosses the western arm of the stream. Here they can still be seen.

Nasir Shah, the third Khilji Sultan of Malwa is said to have built the palace in about 1500 A.D. as a cool summer resort which would provide an escape from the heat of Mandu. The outstanding feature of the palace is the system by which the waters of the river are led through fancifully shaped conduits into numerous tanks and then allowed to fall over sculptured stone curtains. Here the water is spread into a thin iridescent sheet and finally passes back to the bed of the river after a 20 feet drop. In this way chambers built on a masonry platform in the bed of the river were automatically kept cool.

The palace is a good specimen of the Mandu style of architecture. Kiosks and a number of other structures have been added at later dates, especially during the time of the Moghuls. A Persian inscription on one of the kiosks records that Akbar passed here in 1599 A.D. on his way to the Deccan. In recent times more additions and alterations have been made and the palace has been equipped with modern fittings to make it suitable as a residence for the Maharaja Scindia during his visits to Ujjain.

OLD SARAI is another Muhammedan building for which material from old temples has been employed. A portion of this Sarai still exists behind the Post Office. A beautifully engraved Persian inscription, probably belonging to this Sarai, is preserved in the Madhava College,

Ujjain. It was taken there after its removal from the Mochiwada Gate which was evidently the principal gate of this Sarai and which was dismantled during town improvement operations. According to this inscription the Sarai was built in 1579 A.D.—during the reign of Akbar.

MAHAKAL TEMPLE is one of the oldest and most famous of the 12 Jyotir lingas, principal seats of Shaivite worship, in India. Every year thousands of pilgrims from all parts of India are attracted to this shrine, and during the Singhast Mela, which takes place once every 12 years, the number of pilgrims runs into lakhs in a single day. To cope with them the State makes special arrangements for the Mela and there are permanent water, lighting and drainage schemes.

The ancient temple fell a victim to the early Musalman invaders, but ancient though that disaster was, the shrine had already a age-long reputation for sanctity. It was through the idol in this shrine that the first meridian of the Hindu geographers passed and it has been said with truth that in the Mahakal temple the God Shiva was worshipped as the Lord of Great Time.

The present temple, which was built over the site of the ancient structure, is said to have been raised by Ramchandra Baba, a Brahman Dewan of Ranoji Scindia, the founder of the Ruling House of Gwalior. Old sculptures which have been found in the neighbourhood of Ujjain form a small collection exhibited in a wing of the gallery surrounding the courtyard of the temple. The collection is intended as a nucleus of a future Museum of Antiquities.

GOPAL MANDIR is the second biggest temple in the city, and in situated in the heart of the busiest quarter. It was built by Maharani Baija Bai, the able queen of Maharaja Daulat Rao Scindia about 1833. The shrine which houses the image of Krishna (Gopal), has silver doors. It is surmounted by a beautiful marble spire.

THE GHATS on the Sipra are one of the most important parts of religious Ujjain. The right bank of the river, on which the city stands is lined with these bathing steps and studded with modern temples sacred to various gods. People throng here morning and evening for their ablutions, and worship for the Sipra is one of the most sacred streams in the country. It is evident that ghats have been here for many ages for the modern structures have many fragments of old sculptures built into them. The ghats, though visited by pilgrims all through the year, are seen at their best during the Singhast Mela when lakhs of people are all intent upon taking their holy bath in the sacred waters.

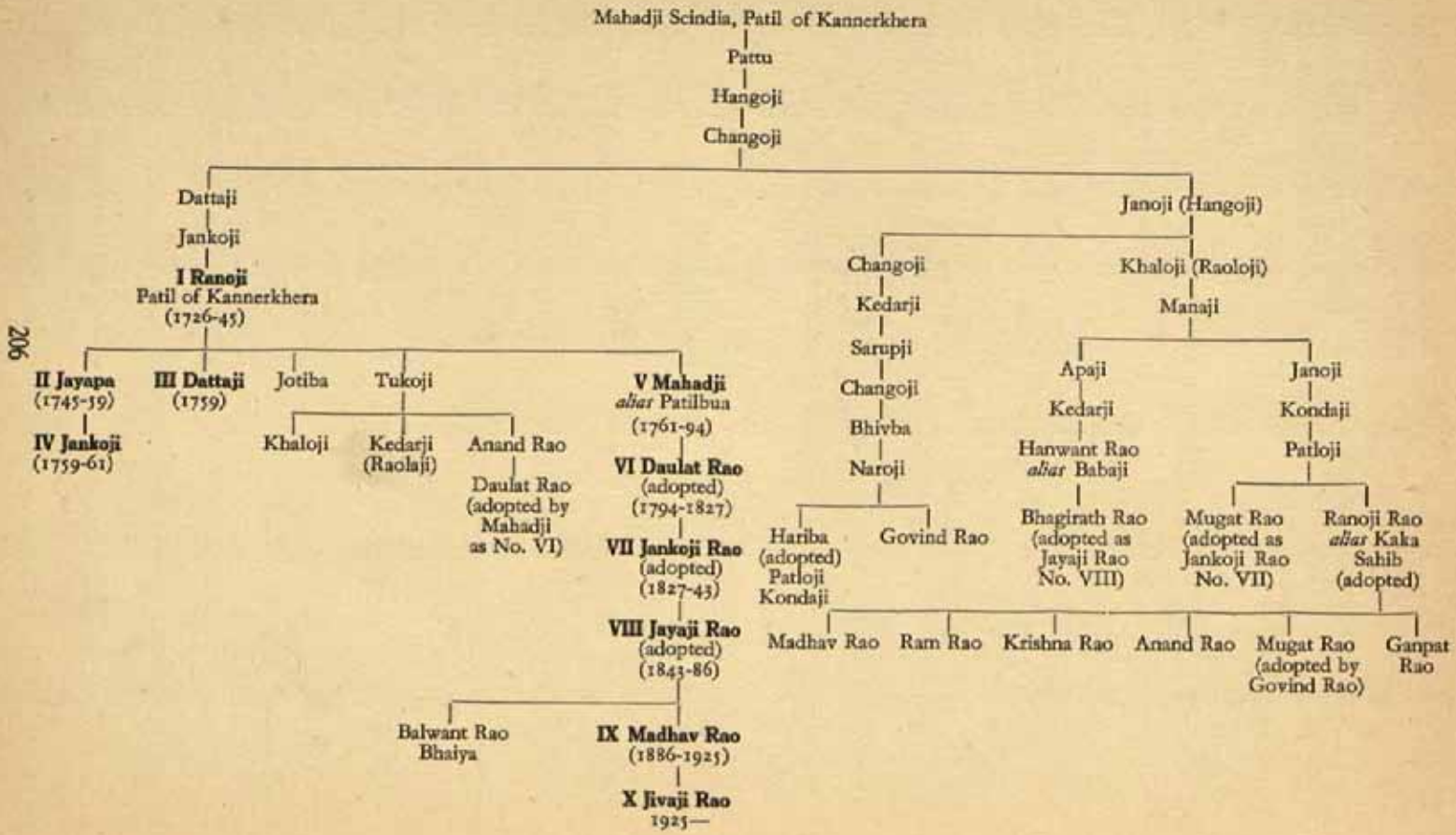
JIWAJI RAO OBSERVATORY, popularly known as the Jantar-mahal, is situated near Jaisinghpura to the south of the town, and on the

right bank of the river. It was erected by Maharaja Jai Singh of Jaipur in 1733 while he was governor of Malwa under the Moghuls. The Maharaja, famous as a scholar and astronomer, also founded observatories at Benares, Delhi, Muttra and Jaipur, the last being the largest of the series. The special feature of these observatories is that they represent what has been aptly described as the " stone age " of astronomy, because the instruments, instead of being the delicate glass and metal affairs of today, were constructed almost wholly of masonry. Since Indian astronomers, as well as geographers regard the first meridian as passing through Ujjain, this observatory has always been of special interest to them. There are four instruments : the Samrata Yantra, the Nadi Valaya Yantra, the Digamsh Yantra, and the Bhitti Yantra. These were repaired by Maharaja Madhav Rao in 1925, and modern observations have proved that the chief instrument, the Samrata Yantra, gives very accurate readings. A staff has been appointed to take observations on the lines of Hindu astronomical works and the observatory is now a living institution doing useful research work. The results of practical observations are published in order to correct inaccuracies which have grown up in orthodox almanacs.

APPENDICES

APPENDIX I

GENEALOGICAL TREE OF THE HOUSE OF SCINDIA



APPENDIX II

THE ARMS OF GWALIOR



Arms : Tenne ; a cobra passant or ; on a chief azure a civic crown between two towers of the second.

Crest : Globe murray charged with a cobra sejant or ; supporters : wolves.

Motto : " Alijah " (Of exalted rank)

(Tenne is the nearest heraldic colour to the Bhagwa of the Marathas).

The figures of the cobras in the arms recalls a story of Mahadji Scindia's childhood when a cobra was seen to protect the sleeping child from the sun's rays by spreading its hood over him. This according to ancient belief was considered a very auspicious indication of future greatness. The chief azure was given in 1869 when a banner was presented to the Scindia, the colour and the crowns being emblems of his fidelity to the British in 1857. The towers indicate the great fortress of Gwalior. Wolves were very common around Gwalior in former times.

The Scindia family also possess the Mahi Maratib (fish dignities) which were among the highest honours conferred by the Moghul Emperors on princes and nobles. They recall the days when Mahadji Scindia swayed the destinies of the Moghul Empire and the Emperor Shah Alam sent these marks of honour and the Sanad of Wazir-ul-Mutlak to the Peshwa Madhav Narayan in 1793. They were transferred by the Peshwa to Scindia as his deputy.

These emblems consist of a number of articles which are carried on poles ornamented with tassels and streamers. Two fish—Mahi Machha (male) and Machhi (female)—are each surmounted by a hand (Panja). There is also a gilded sun (Aftab) ; a crescent moon bearing an Arabic inscription ; two open hands (Panja) ; two golden globes (Tog) ; and a pair of standards (Alam), the most ornamental part of the series. Each standard is composed of a round metal plate inscribed with Arabic characters, above which are two leaf like projections. The whole is surmounted by a small crescent containing a hand. A tiger's head is also

surmounted by a hand. The exact meaning of these emblems, 11 in number, is mysterious. The fish are understood to signify the foundations of the earth, and the other orbs and figures to denote heavenly bodies and signs of the zodiac; thus extending the honours conferred by the emblems from the "waters under the earth" to the "highest heaven."

In addition to this group of symbols there is also the magnificently embroidered Palki-Nalki, or palanquin, and the sedan chair conferred on Mahadji Scindia by the Emperor Shah Alam.

On State occasions the emblems are carried in procession with the royal insignia.

The full title of the Ruler of Gwalior is :

His Highness Maharaja, Mukhtar-ul-Mulk, Azim-ul-Iqtidar, Rafi-ush-Shan, Wala Shikoh, Mohatashim-i-Dauran, Umdat-ul-Umra, Maharajadhiraj, Hisam-us-Saltanat, George Jiwaji Rao Scindia, Alijah Bahadur, Shrinath, Mansur-i-Zaman, Fidwi-i-Hazrat-i-Malik-i-Moazzam-i-Rafi-ud-Darjat-i-Inglistan.

APPENDIX III

SARDARS AND NOTABLES

Algiwale.—The founder of this family was a servant of the Peshwa who was killed by the Orchha Chief. His son was then given a Jagir. The present holder is Wishwasrao. The estate of eight villages lies in Karera pargana. Income : Rs.6,000.

***Angre.**—Kanoji Rao Angre from whom the family descends resided at Alibagh (Kolaba). One of his sons Isaji Rao came to Hindustan with Mahadji Scindia and his daughter Maina Bai was the mother of Maharaja Daulat Rao Scindia. The present holder is Sardar Chandroji Rao Angre who succeeded his father in 1917. He holds the office of Foreign and Political Minister, Gwalior Durbar and is Vice-President of the Executive Council. He has the hereditary title of " Sawai Sarkhel " from the Gwalior Durbar and is an honorary Major in the Army. Income : Rs.2,50,000.

Apte.—The Apte family was founded by Naro Vishnu Ganesh Apte, a military commander under Maharaja Daulat Rao Scindia. The family has the hereditary title of " Rao Raja Shamsher Bahadur." The present holder is Sardar Madhorao Apte. He is Director of the Veterinary Department and holds the honorary rank of Major in the Army. Income : Rs.7,000.

Bakshi.—Isa Rambhaji was in Ranoji Scindia's service and his family distinguished itself in various campaigns. The grandson of the founder, who bore the same name, was made Bakshi (pay-master) to the forces in Maharaja Daulat Rao's time. The present head of the family is Dattatraya Dwarkanath who succeeded in 1910. Income : Rs.2,000.

Bhonsale.—The founder was Moraji Bhonsale whose wife was sister to Maharaja Jayaji Rao Scindia's mother. The present holder is Sardar Moroji Rao who is the son of Khande Rao Bhonsale, great-grandson of the founder. Income : Rs.3,000.

Rao Saheb Bhonsale.—Parwat Rao Bhonsale, the founder of this branch of the family, was a cousin of Baija Bai, Maharaja Daulat Rao's wife. The present holder is Sardar Rao Saheb Bhonsale who succeeded in 1911. He receives cash allowances amounting to Rs.5,500 a year from the State.

Chitnis.—Two brothers, Krishna Rao Raghunath and Abaji Raghunath Nigdikar, originally in the Peshwa's service, joined Mahadji Scindia, the former becoming Chitnis and the latter a Paiga Officer. The present holder is Gopal Rao Chitnis who is also a Muafidar in Burhanpur, and an Assistant Secretary in the Foreign and Political Department. Income : Rs.6,500.

Filose.—The Filose family descended from Michael Filose, an Italian, who entered the service of Scindia in 1774 and rose to high military command. He retired to Europe, and his place was taken by his son, Jean Baptiste Filose, who was instrumental in securing extensive territories in northern Gwalior from Karauli State and other small Rajput Chiefs in that region, especially from the Khichis of Raghogarh. The present representative of the family is Sardar Augustine F. Filose. He was educated in England as a barrister and on his return to India was appointed in the Judicial Department. At present he is Private Secretary to Her Highness the Maharani Sahiba.

Gangajaliwale.—The founder of this family was Vasudeo Rao, who was in charge of the State Treasury during the reign of Maharaja Daulat Rao Scindia. The family held Sardari rank for some time but subsequently this rank was withheld by the State and a cash Muafi amounting to Rs.5,000 annually was conferred on the family as a darakh. The present holder is Ramdasi Maharaj who is an officer of the State Treasury at Lashkar.

***Ghorpade.**—This family claims Sisodia descent through Ajaya Singh, who is said to have gone to the Deccan in 1340. The original name of the Ghorpades was Bhonsale but Maloji earned the cognomen of Ghorpade by capturing a fort in the Konkan with the assistance of a large iguana (Ghorpad) to which he attached a cord and forced the animal to drag him up the steep scarp on which the stronghold stood. The daughter of Yeshwant Rao Ghorpade was married to Maharaja Jankoji Rao Scindia and thus he became a Sardar of the State. The present holder is Sardar Yadava Rao Saheb Ghorpade, who succeeded in 1886.

The total income of his jagir villages in Sardarpur district and Nimach pargana is Rs.23,500. He is also in receipt of a cash Muafi of Rs.26,244 from the State.

***Gujar.**—Babaji Rao Gujar of Ratnagiri had a daughter Lakshmi Bai who was married to Maharaja Jayaji Rao Scindia. The present holder is Sardar Anand Rao who succeeded in 1913. He receives a cash allowance of Rs.900 a month.

***Hajratji.**—When Mahadji was operating against Ghulam Kadir of Delhi, Muhammed Shah acted as his envoy. The family thus formed a connection with the State. The present holder is Sardar Syed Ghani Muhammed Shah (Hajratji Sahib). He was an Aide-de-Camp to His Highness and is a Captain in the State Forces. He receives Rs.11,000 a year from the State.

***Hire Khan.**—The founder Jamadar Hire Khan served under Mahadji. He distinguished himself in relieving Lakhoba Dada at Agra and also in the battle of Karda. The present holder is also called Hire Khan. The income of the estate which consists of 24 villages lying in the Kolaras, Ujjain and Barnagar parganas is Rs.21,000.

***Ingle.**—The founder Trimbak Rao, an officer of the Peshwa, joined Mahadji Scindia. The family claims Solanki Rajput origin and came originally from Kotah. In 1819 a jagir was assigned by Maharaja Daulat Rao to Narayan Rao, a grandson of Trimbak Rao. Later a dispute split the family into three branches, each receiving a portion of the estate. The present holder in the main branch is Sardar Bala Sahib Ingle. This jagir consists of 27 villages yielding an income of Rs.10,500 a year.

In the second branch, the present holder is Sardar Trimbak Rao and his jagir consists of 12 villages yielding an income of Rs.10,500.

In the third branch the present holder is Vasant Rao. His jagir consists of six villages with an income of Rs.3,000.

***Jadhava.**—The family is descended from Lakhaji Jadhava, Deshmukh of Sindkheda, whose daughter Jijiba was married to Maluji Bhonsale's son Shahaji and in 1627 gave birth to Shivaji, the founder of the Maratha Empire. Piluji Jadhava was the first member of the family to enter Scindia's service. His great-grandson was Deo Rao, better known as Mama Sahib, whose sister was married to Hanvant Rao Scindia, whose son Bhagirath Rao Scindia succeeded to the Gadi on Jankoji Rao's death, as Maharaja Jayaji Rao. Deo Rao, who died in 1852, was President of the Council during Jayaji Rao's minority. He was succeeded by Krishna Rao Bapu Sahib, who was similarly a Member and afterwards President of the Council of Regency during the late Maharaja Madhav Rao Scindia's minority. He was created a K.C.I.E. His daughter Sakhyaraja Sahiba was married to Maharaja Jayaji Rao in 1874 and was the late Maharaja's mother. On Krishna Rao's death in 1900, his widow was granted possession of the jagir. She had adopted a son, Deo Rao, with the Durbar's approval, who passed away in 1922. She adopted a second son named Deo Rao Bapu, also with the Durbar's approval, who is the present holder of the estate and is the Director of the Agricultural Department. He also holds an honorary military rank of Lieutenant. The total income amounts to Rs.1,70,000, the estate comprising over 209 villages in Arone, Myana, and Nimach parganas. The family holds Sardari rank and the hereditary titles of Mukhtar-ud-daula, Madar-ul-Moham Rao Bahadur Firoz Jang.

***Jatar.**—The founder of this family was Chintamani Panth Jatar, whose ancestors were Phadnis in Jalaun State. Balaji Panth, his son, entered Gwalior State service in 1843. During the Mutiny he looked after the Maharanis who for the time being were living in the fort at Narwar. He became Dewan in 1860. The present holder is Ramrao, who was for a time Aide-de-Camp to His late Highness. Income : Rs.18,000.

***Jinsivale.**—The founder of the family was Madhav Rao Brahmaji Kshirsagar who was in the service of Maharaja Daulat Rao. He was commandant of Artillery, whence the family surname is derived. Balwant Rao rendered a good service in the Mutiny for which he was rewarded by the British Government as well as by the Durbar. He was succeeded by his son Malharrao, also known as Bapu Bhaiya Saheb. He died in 1913 leaving two grandsons Madhorao and Balwantrao. The former is the present holder of the estate. The family holds Sardari rank. The income of the estate, with nine villages situated in Sardarpur, Nimach and Bijeypur parganas, is about Rs.36,000.

***Kadam.**—The family was founded by Balwantrao Kadam, an officer in the Peshwa's service. His son Appaji Rao served Mahadji Scindia. The present holder is Laxmanrao Kadam. Income : about Rs.30,000.

***Krishnaji Rao Kadam.**—Krishna Rao Kadam was Maharaja Jankoji Rao Scindia's maternal uncle, and was thus known as "Mama Saheb." He left Gwalior during the minority of Maharaja Jayaji Rao, who later recalled his son Yadavrao, who was succeeded by Balbhim Rao. The present holder is Sardar Krishnaji Rao, a son of Balbhim Rao. He enjoys an income of about Rs.18,000 a year and also holds villages in Satara district yielding Rs.3,500 a year.

Khatke.—The founder of this family Ranoji Khatke served Mahadji Scindia. His son Udaji was granted a jagir by Maharaja Daulat Rao for distinguished services. The present holder is Sardar Malharrao Khatke. Income : about Rs.6,000.

Khatke.—The founder of this family was Dadaji Khatke who was in the service of Maharaja Jankoji Rao Scindia. He was a Patel in Poona district but later on when Ahmednagar was given over to the Government of India in exchange, his family was given

the village of Salwai in Antri pargana (Gwalior State) as a jagir. The present holder is Narayan Rao. Income : approximately Rs.5,000.

***Khasgiwale.**—Murar Govind Kshirsagar Kulkarni of Jamgaon in Ahmedabad district, was the founder of the family. He became Khasgi officer to Ranoji Scindia whence the family surname is derived. The present holder is Sakharam Balwant who succeeded in 1922. Income : about Rs.12,000.

***Mahadik.**—The founder of the family was Yeshwantrao Mahadik, a well known military leader under Mahadji Scindia. The estate granted to the family was split into two portions in 1837. Recently the two portions have been amalgamated and the present holder of the amalgamated jagirs is Sardar Krishna Rao who succeeded in 1914. The family holds Sardari rank. Sardar Krishna Rao also holds the honorary rank of Lieutenant in the State forces. The income of the estate (Parganas Digthan and Pipliya) is about Rs.1,44,000.

***Mahurkar.**—Sultan Rao Mahurkar was a conspicuous military commander under both Mahadji and Maharaja Daulat Rao Scindia, He was succeeded by his son Jagdeo, who for good services in the Mutiny, was granted a jagir of three villages in the Lalitpur district of the United Provinces by the British Government. But later, at Jagdeo's request he was granted his ancestral village of Mahur in the Poona district in place of the one in the Lalitpur district, and the remaining two villages were given on Istamurari tenure. The last holder was Sardar Bala Saheb who died in 1936. The question of succession is under consideration. The income of the estate which includes 17 villages in Sardarpur, Nimach and Gird districts is about Rs.29,000 a year.

Modi.—The ancestor of this family was a merchant of Kannerkhera and accompanied Mahadji to Hindustan. In 1872 a jagir was conferred on the family. The present holder is Krishna Rao Modi. Income : Rs.5,500.

***Mohite.**—The founder of this family which claims Chauhan Rajput origin, was Hansaji Mohite who is said to have been a distinguished soldier and Commander-in-Chief of Shivaji's armies. A branch of this family was established in Gwalior when Her late Highness Chinku Raja Saheba, a Senior Maharani, was married to His late Highness Maharaja Madhav Rao Scindia in 1891 and her father Sardar Madhorao Mohite was made a Sardar of the State. He was for a time an Aide-de-Camp to His late Highness and received an allowance of Rs.21,600 a year. He died in 1920 and was succeeded by his son Lieutenant Sardar Sankar Rao Mohite, the present holder of the title and the allowance attached thereto.

***Munshi Raja.**—The family is descended from Ramchandra Rai, a Gujerati Brahmin who served under both Ranoji and Mahadji Scindia. One of his sons became Persian writer to Mahadji Scindia, hence the family's surname. The last holder was Harishchandra Rao who died in 1937. The question of succession of his son Bhaskar Rao is under consideration. The income of the estate is about Rs.15,000 a year, and the estate comprises three villages in the Ujjain district. The family also holds three villages in jagir in British India. The income from all sources is about Rs.21,000 a year.

Nimbalkar.—Dharrao Nimbalkar joined Mahadji Scindia while other members of the family came to Gwalior during Maharaja Daulat Rao's time. Nilkanthrao, third in succession from Dharrao, married Ganga Bai, a distant cousin of Maharaja Jayaji Rao Scindia. The present holder is Sardar Nilkanthrao who succeeded on adoption in 1925. He gets an allowance of Rs.8,600 a year.

***Vyankat Rao Nimbalkar.**—The family descended from Bapuji Rao, one of the Peshwa's officers who served with Mahadji Scindia. The present holder is Sardar Vyankatrao who succeeded in 1904. Income : about Rs.12,000.

***Pagnis.**—The family dates from the time of Mahadji Scindia when Baloba Tantiya Kinjawarkar entered Gwalior service. He also proved useful to Maharaja Daulat Rao Scindia. His son Bhaskarrao left three sons between whom the estate was divided. The present holder in the senior branch is Balwantrao who succeeded in 1924 and is Secretary to Government in the Finance Department. The estate consists of two villages in the Ujjain district with a total income of about Rs.10,900 a year.

(*ii*) From Trimbakrao, the second son, another branch is descended. The present holder who succeeded in 1893 is also called Trimbakrao. His share of the estate amounts to about Rs.2,900 a year.

(*iii*) From Narayan Rao, the youngest son of Bhaskar Rao, a third branch is descended. The present holder is Mangeshrao who succeeded in 1905. His share amounts to about Rs.3,500 a year.

***Patankar.**—Ramchandra Patankar married Chhimnaji Bai, a daughter of Maharaja Daulat Rao Scindia, and became a Sardar of the State. The present holder is Sardar Trimbak Rao Patankar who succeeded in 1919 and is working at present as President, Jamdar Khana. Income : about Rs.38,800.

Pawar.—The founder of this family is Shivrao Pawar who was brought to Gwalior by Sardar Ramrao Phalke. The present holder is Sardar Daji Saheb Pawar, who succeeded in 1911. The income of the holding, which consists of two villages in Pichhor pargana, is about Rs.3,000.

***Phadnawis.**—Sadashiv Rao Bapuji Kersuni was appointed Fadnawis to Mahadji Scindia. The present holder is Sadashiv Rao, Inspector General of State Records and an Aide-de-Camp to His Highness. He is also Major in A Battery. His estate comprises of three villages in Sonkach, Shajapur and Pichhor parganas with an income of about Rs.21,000. He also receives Rs.144 a year from the British Government.

Phalke.—The founder, Nimbaji Rao Phalke, was one of Ranoji Scindia's best known officers, accompanying him in Malwa. The family served with conspicuous distinction in all campaigns. It ultimately split up into three sections :

*(*i*) **Madhorao Phalke.** Nimbaji's great-grandson Ramrao was President of the Council of Regency during the minority of Maharaja Jayaji Rao Scindia and gave great assistance to the British in the troubles of 1844. On his death in 1848 he was succeeded by his son, who was succeeded in 1912 by his adopted son, the present holder Sardar Madhav Rao. The estate includes 17 villages in Pichhor and Sardarpur districts, the total income being about Rs.59,000. He also holds a jagir village in Satara district. He is an honorary Captain in the State forces and holds the office of Huzur Secretary to His Highness Maharaja Scindia.

*(*ii*) The second branch is descended from Anandrao Phalke, Nimbaji Rao's second son. The present holder is Sardar Anandrao who succeeded in 1900. The estate, which comprises 31 villages in Sardarpur and Ujjain districts, has a total income of about Rs.75,000.

*(*iii*) The third branch of the family is descended from Satwaji Rao Phalke and was till very recently represented by Sardar Najjaji Rao. He died in 1937 without a male issue, and the question of succession to the estate, which consists of three villages in Sardarpur and Ujjain districts, with a total income of about Rs.25,000, is under consideration. The estate is under the supervision of the Court of Wards.

Rajwade.—The founder of this family was Vasudeo Rao Ramchandra Rao Rajwade, a cousin of Sir Dinkar Rao. After serving several local Sardars he became in his cousin's time Suba of Tawarghar. In 1857 he was most active in punishing the mutineers and was rewarded by the British Government as well as by the Durbar. The present holder is Ramrao Madhav Rajwade. He holds an estate of three villages in Sardarpur district with an income of about Rs.4,000.

***Ranekhan.**—Ranekhan, the founder of this family, accompanied Mahadji Scindia in his campaigns and was present at the battle of Panipat. When Mahadji was wounded he was instrumental in saving his life. In reward for the service thus rendered Scindia always called him "Bhai", a title confirmed by the Emperor of Delhi. Ranekhan was killed at Bharatpur in June 1788 and was succeeded by his son Hasankhan Bhai. The last holder was Sardar Anwarul Hasan Khan Bhai who died in 1938. The question of succession is under consideration. The estate is under the supervision of the Court of Wards.

The family has the surname of Khawasiwale derived from the special privilege of sitting behind the Maharaja on his elephant at the State Ceremonials. The income of the estate lying in Ujjain district, is about Rs.28,000.

***Rao Raja.**—The founder of this family was Timaji Pant Joshi. Members of his family served the Satara Rajas, the Nawab of Hyderabad and the Peshwa. The first member of the family to come to Gwalior was Ragho Dinkar, who was at one time the Vinchurkar Chief's representative with Scindia but later entered the service of the Durbar. His son Dinkar Rao Raghunath, who was born at Devrukh in Ratnagiri district in 1819, entered the State service at 15 years of age, and became Minister in 1852. He rapidly put the finances of the State in order, introduced a regular settlement and re-organised the Judicial and other Departments. His services in 1857 were of the highest importance to the cause of peace. He was rewarded both by the Maharaja Jayaji Rao Scindia and the British Government.

He assisted at various times in the administration of the Dholpur, Dewas and Rewah States. In 1861 he was appointed to the Viceroy's Council on which he sat until 1864. In 1866 he received the K.C.S.I. In 1873 he served on the Baroda Commission. The hereditary title of Rao Raja Mashir-i-Khas Bahadur was later awarded to him. He died at Allahabad in 1896.

His son Sardar Rao Raja Raghunath Rao succeeded him. He held many posts of importance in the State service, and ranked as a first class Sardar in Bombay Presidency. In 1911 he received the C.I.E. He received the title of Madar-ul-Muham from the State. He died in 1920.

His son Ganpat Rao Rajwade succeeded him. He is Major-General in the State forces and at present serving the State as Army Minister. He holds the order of C.B.E., has the title of Shaukat Jang from the State, is an honorary Lieutenant-Colonel in the British Army and an Aide-de-Camp to H. E. the Viceroy. The income of the estate lying in Nimach, Sardarpur and Ambah parganas and comprising 27 villages, is about Rs.82,000. His estate in British India consists of 23 villages with an income of Rs.50,000.

***Sarnobat.**—The founder of this family was Setiba Scindia, who joined Mahadji and became Commander-in-Chief. The present holder is Sardar Shankar Rao, who succeeded on adoption in 1909. The estate has, including allowances, an income of about Rs.12,400.

***Shitole.**—This family which claims descent from Sisodia Rajput stock, has long been of importance in the Deccan where it has held Pateli rights for many generations. About 1776, Sidhuji Shitole's son Laduji married Balabai, Mahadji Scindia's daughter, and he then became a Gwalior Sardar. Again in 1886 Ramchandra Rao Shitole, Laduji's grandson, married Gunwanta Raja, a sister of the late Maharaja Madhav Rao Scindia. In 1902 Sardar Maloji Rao Narsingh Rao Shitole succeeded to the estate lying in Shivpuri, Mandsaur and

Sheopur districts including 226 villages with a total income of about Rs.2,70,000. He also holds lands in British India with a revenue of about Rs.25,000. He was for a time Aide-de-Camp to the Maharaja and is now Minister, State Police, and an honorary Colonel in the State forces.

***Shri Saheb.**—The founder of the family was Mansoor Shah who after the battle of Panipat assured Mahadji's wife of her husband's safety and later became one of his " Gurus." His son Habib Shah was granted a jagir. The present holder, Mansoor, alias Badshah Miyan, is fifth in descent from Mansoor Shah. A religious festival (Urs) is held yearly at Gwalior in honour of the founder. The estate has an income of about Rs.64,000. He also holds villages in British India and in Hyderabad State, the income of which is about Rs. 24,000.

Shrinivas.—In 1852 Shrinivas Govind Khadkatkar became Vakil to the Resident at Gwalior, assisting him and other Europeans in the retreat to Agra during the Mutiny. The present holder is Anand Rao Dattatraya Shrinivas who succeeded Dattatraya Shrinivas, the eldest son of the original grantee. The estate comprises four villages in Sardarpur district. The income is about Rs. 2,400.

***Shinde.**—This branch is descended from Kondaji Shinde whose grandson Mugat Rao succeeded on adoption to the Gadi as Jankoji Rao Scindia. The present holder is Sardar Madho Rao who succeeded in 1909. His estate of six villages lies in Mandsaur and Sardarpur districts. Income : about Rs. 19,000.

Pingolkar Saheb Shinde.—Phirangoji served under Mahadji. The present holder of the grant is Sardar Vithal Rao Shinde who succeeded in 1905. He receives an allowance of Rs. 6,000 a year.

Vankde Dewan.—The founder of the family Atmaram Shivram, personal writer to Mahadji, became Dewan in 1793, a post also held by his son. The last representative of the family was Vyankat Rao Balwant who died in 1918 without male issue. The estate granted to the family in Ujjain and Mandsaur districts is under the management of the Court of Wards in the name of Durga Bai, the widow of the last holder. It consists of three villages with an income of about Rs. 7,900.

***Vipat.**—Originally a Purohit, Malhar Dattatraya Vipat was brought to Gwalior by Maharaja Daulat Rao Scindia and served in various capacities. Dattatraya Rao, who succeeded in 1923, is the present holder and has two villages and other lands in Khachraud pargana with a gross income of about Rs. 24,000.

* Denotes Jagirdars whose income is over Rs. 10,000 a year.

APPENDIX IV

PERSONS OF NOTE IN THE DISTRICTS

GIRD DISTRICT

Kalyani.—Baldeo Singh, a Dandotya Thakur, gave great assistance to the Political Agent at Gwalior and other Europeans in Lashkar and Morar in their flight to Agra during the Mutiny. He was rewarded by both the British Government and the Durbar, a jagir being given to the Thakur for his services. Later the jagir was split into two branches. The present holder of one of them is Thakur Murlidhar Singh, son of Purshottam Singh and great-grandson of Baldeo Singh, the founder of the family.

After the Mutiny a troop of Dandotyas was raised for the Central India Horse under Thakur Gopal Singh, brother of Baldeo Singh. Thakur Chatar Singh, son of Gopal Singh, the holder of the second branch, died very recently. The succession of his son Dakhil Kharij is under consideration. The income of the two branches amounts approximately to Rs. 3,000.

Badagaon.—The Thakurs are Tonwar Rajputs who have been long settled in the region. One of their villages was confiscated by Maharaja Daulat Rao Scindia and they are now in possession of Badagaon only. The present holder is Chandan Singh. The estate is under the supervision of the Court of Wards and yields an income of Rs. 4,700.

***Magrora.**—The Raja of Magrora is descended from Hamir Singh Jat, who, before the advent of the Marathas, was the principal land-owner of Pichhor district. This family was held in high repute in Delhi, the title of "Raja" being conferred by the Emperor on Hindupat Singh, Hamir Singh's son. Raja Pahad Singh who held the estate when the Maratha invasion took place was confirmed by Mahadji in 1782 in possession of 37 villages. In 1843 under the direction of Col. Sleeman, then Resident at Gwalior, a division of the land took place between three branches of the family.

The main branch held Magrora and other villages. The last holder was Raja Ram Singh who died in 1937. The succession is under consideration. The Magrora estate has an income of Rs. 12,300.

Other branches are descended from Prithipat Singh, a brother of Hindupat Singh, and from Chatra Singh and Khuman Singh, sons of Pahad Singh. The last holder in Prithipat Singh's line was Balwant Singh who died in 1938. The succession is under consideration. The present holder in the third branch is Lokpal Singh.

Mohangarh.—The family was founded during Mahadji's time by Bharat Sanai Jat. For good services, Maharaja Daulat Rao Scindia rewarded the family with Mastura and other villages. Disputes in the family and an obdurate attitude towards the Durbar led to various changes. Finally in 1857, the villages of Mohangarh and Ramju Pira were granted to them. The last holder was Thakur Gopal Singh who died in 1935. The succession is under consideration. The estate's income is Rs. 7,100.

...handeri family. The

Mohana.—The Chauhans of Mohana have been settled here since A... Rai having received 339 villages for good services to the Emperor. The ... the land is Sultan Singh. The income of the estate is Rs. 8,500.

...tury). The ...ages.

Harsi.—The Kachhwaha Thakurs of Harsi come from an old family which is ... of the Narwar rulers from whom the Jaipur House derives its origin. The present ... have been in possession of the estate since Maharaja Jankoji Rao Scindia's days. The pr... holder is Dewan Laxman Singh. The estate has an income of Rs. 5,000.

***Karhaiya.**—The Ponwar Rajputs of Karhaiya were the chief land-owners in this tract before the Maratha domination. The estate is now under the Court of Wards and the present holder is Rao Dashrath Singh. Income from the estate is Rs. 15,000.

MORENA DISTRICT

***Pahadgarh.**—The Rajas of Pahadgarh are Bargujars who have long been settled in this tract. After the Maratha invasion they lost many of their possessions by their refractory behaviour. In 1835 Maharaja Jankoji Rao Scindia conferred the title of "Raja" on the Thakur. The present holder is Raja Pancham Singh, who succeeded as a minor in 1910. He is now President of the Lashkar Municipality. The estate as now held consists of 52 villages in all, the income from which is Rs. 40,000.

Balbera.—This village has been held by the family since pre-Maratha days. The present holder is Thakur Sawant Singh. The income of the Thikana is Rs. 3,400.

***Rampur Kalan.**—Maharaja Daulat Rao Scindia gave Rudra Singh the villages of Babhuti, Randhan and Rampura in jagir. The present holder is Trilok Pal Singh who succeeded in 1922. The income of the three villages amounts to Rs. 14,300.

Kathaun.—Thakur Pratap Singh, a Jadon Rajput, was born in 1865 and succeeded to one-fourth of the estate in 1892. There are also three other shares each holding 4 annas patti as his share. The whole estate is worth Rs. 9,000 a year.

BHIND DISTRICT

***Karwas.**—The Jat Thakurs of Karwas are said to have assisted Mahadji against the Thakurs of Gohad. The present holder is Udayabhan Singh. His estate comprises five villages with an income of Rs. 13,800.

Dhorka.—A priestly family dating from the time of the Narwar Chiefs was confirmed by Mahadji Scindia in its possession of the estate of Dhorka. The present holder is Munnilal. The income is Rs. 1,900.

Rarua Parsala.—The Kachhwaha Rajputs of Parsala came under the Marathas after the capture of Lahar in 1803. The present holder is Ramchandra Singh who succeeded in 1925. He holds two villages with an income of Rs. 6,300.

Lahar.—The Kachhwahas of Lahar belong to the Jaipur family and came under the Marathas after the conquest of this tract. Raja Ratan Singh, the founder of the family, was granted two villages for his maintenance and later on the British Government also awarded

r his loyal services. These villages were subsequently transferred to the in an exchange of territory. The present holder is Raja Ran Bijey Singh in 1920. The income of the estate is Rs. 8,500.

nand.—This estate passed to the Marathas after the capture of Lahar. The der was Raja Narendra Singh. He was succeeded by his adopted son Raja Raghubir gh in 1924. The income of the estate is Rs. 16,700.

Nakkara.—This family of Kachhwaha Rajputs held land round about Lahar when Scindia took possession of the district. They were then granted Nakkara village. The present holder is Raja Jang Bahadur Singh who has an income of Rs. 1,700.

SHEOPUR DISTRICT

***Sheopur Baroda.**—The Raja of Sheopur Baroda is a Gaud Rajput. His ancestors are said to have established themselves in Ajmer in the 12th century, whence they were driven by the Muhammedans. In Akbar's days Baroda was the headquarters of a Mahal in the Ranthambhor Sirkar of the Ajmer Suba and lands were granted by the Delhi Emperor to the family who made Sheopur their headquarters. The Raja became subordinate to Gwalior in 1809. In 1820 Radhika Das was granted 23 villages including Baroda. His estates, however, were confiscated for joining in the Mutiny of 1857, but his son Raja Bijey Singh was re-granted the estate. The present holder is Raja Bhawani Singh. The estate consists of 34 villages with an income of Rs. 52,000.

Gobar Gaondi.—The Jadon Thakurs of this estate originally held Sabalgarh and other places on a sanad granted by the Delhi Emperor in 1677. The present holder is Lokendra Singh. The estate is composed of two villages with an income of Rs. 3,000.

Raghunath Pura.—The Jadon Thakurs of Raghunath Pura belong to the Karauli family. The present holder of the estate is Kubhan Chandra Singh, who succeeded in 1885. He holds 11 villages with an income of Rs. 5,500.

Kelore.—Thakur Hazari Singh of Kelore succeeded in 1927. Maharaja Daulat Rao Scindia originally granted the estate to Gopal Singh. The estate has an income of Rs. 3,000 from seven villages.

Khatoli.—The grant is said to have been made by Raja Uttam Ram of Sheopur Baroda to a Gaud Thakur, Amar Singh, in 1675. The family has now six villages, the present holder being Balwir Singh. The estate has an income of Rs. 6,700.

SHIVPURI DISTRICT

Amola.—The family has been in possession of the Thikana since the days of Musalman rule. It came into the hands of the Scindias in 1861 during an exchange of territory with the British Government. The present holder is Debi Singh whose income of Rs. 3,250 is derived from five villages.

Asapur.—Hamir Singh Dhandra is said to have received 11 villages from Prithwi Raj in the 12th century. The estate, which passed to Scindia during the exchange of 1861, still contains the same number of villages. Thakur Lokpal Singh is the present holder. The income of the estate is Rs. 7,500.

Gudar.—The Thakur is a Bundela Rajput belonging to the old Chanderi family. The present holder is Pratap Singh. The estate has an income of Rs. 2,000.

Chandaoni.—The family dates back to the time of Prithwi Raj (12th century). The present holder is Barjor Singh whose income of Rs. 2,900 is derived from nine villages.

Badera.—The family states that it has been settled here since the time of Prithwi Raj. The present holder is Thakur Raghubir Singh. An income of Rs. 1,150 is derived from 12 villages.

Manpura.—This family asserts that it originally obtained the estate in 1094. The last holder was Thakur Jagat Rai Singh who died in 1925, and the estate is now under the supervision of the Court of Wards. The income derived from nine villages is Rs. 7,000.

***Padon.**—Raja Mahendra Singh, a Kachhwaha Rajput, succeeded to this estate in 1898. The estate at the time of the original grant consisted of Padon Pargana and six other villages. The Padon family is directly descended from the Kachhwaha family of Narwar. The present estate was formed originally in 1818 under British guarantee but it was forfeited by the rebellion of Madho Singh in 1857 and restored to Man Singh in 1861 for his services in capturing Tantiya Topi. A cash allowance of Rs. 1,000 a year was granted at the same time. The present holder is Raja Gaj Singh who is a minor, and the estate is under the supervision of the Court of Wards. The income of the estate is about Rs. 34,300.

GUNA DISTRICT

Bansaheda.—This estate is held by Thakurs of the Khichi Chauhan family of Raghogarh. The last Thakur was Bahadur Singh. The succession is pending decision. The income of the estate is about Rs. 3,600.

***Bhadaura.**—Raja Ranjit Singh, a Sisodia Rajput of the Umri family, succeeded to this estate in 1900. He died in 1913 and an adoptive son Gopal Singh was recognised heir by the Gwalior Durbar. The estate has an income of Rs. 15,000.

Machharia.—The holders are Sanadhaya Brahmins who were granted land by Raja Jai Singh Khichi of Raghogarh. The present holder, Raghunath Singh, possesses 12 villages with an income of Rs. 1,970.

***Dharnauda.**—Thakur Bhim Singh, a Khichi Chauhan of the Raghogarh family, succeeded in 1877. His son Hanmant Singh died in 1919, leaving a son Bhupendra Singh aged about eight years, who succeeded his grandfather. The estate of 32 villages has an income of about Rs. 12,500.

Khiyaoda.—A small estate held by Thakur Madan Singh, a Sagarwat Sisodia Rajput of the Umri family, who succeeded in 1889. The revenue is about Rs. 3,000.

***Sirsi.**—The present holder is Pancham Singh, a Bundelkhandi Dhander. He derives an income of about Rs. 10,000 from his estate.

***Raghogarh.**—Raja Bahadur Singh, a Khichi Chauhan and head of this clan, succeeded to the estate in 1902.

The estate at the time of its grant in 1819 consisted of 204 villages, of which 52 subsequently fell to the share of Garha and 32 to Dharnauda, with a revenue of Rs. 55,000. The Garha and Dharnauda estate holders are members of this family. The estate is under the supervision of the Court of Wards, and has a revenue of Rs. 66,000.

*Umri.—The Umri estate was founded by Pratap Singh, a descendant of Sagarji, son of Rana Udai Singh, the founder of Udaipur city. The present holder is Raja Brijendra Singh. The estate has an income of Rs. 22,800.

*Garha.—The holder of this estate is Raja Gaj Singh, a Khichi Chauhan of the Raghogarh family. The estate, which at the time of the original grant contained 52 villages, has an income of about Rs. 53,000.

BHILSA DISTRICT

Pachwa.—The estate was granted in 1743 to the present holder's forefathers by the Delhi Emperor. The present incumbent, Inayat Ali Shah, succeeded in 1890. His income is Rs. 8,000 derived from seven villages.

*Agra Barkhera.—Thakur Madho Singh, a Ponwar Rajput, is the present holder. The estate has an income of about Rs. 42,000.

*Haidargarh Basoda.—The estate was formed in 1753 by a grant of country to Ahsanulla Khan who became a feudatory of Gwalior. The present holder is Nawab Ayub Ali Khan. The revenue of the estate is about Rs. 19,000.

Pathari.—The estate was granted by Maharaja Daulat Rao Scindia in 1807, after he had conquered Rahatgarh. The present holder, Nawab Abdul Rahim Khan, succeeded in 1913. The revenue of the estate is Rs. 20,000.

UJJAIN DISTRICT

Jhaleria.—Thakur Nathu Singh of Jhaleria is a Rathor Rajput. His family does not possess any village but receives certain Tankas from Gwalior and Dewas. The income is Rs. 1,150.

*Amla.—The Thakur is a Ranawat Sisodia, a branch of the House of Udaipur. Maharaj Chain Singh was given a Ghasia Sardari in 1908. The present holder is Maharaj Nahar Singh, son of Chain Singh. His income is Rs. 19,300.

*Rupeta (Chhaigaon).—The estate was granted in 1875 by Maharaja Jayaji Rao Scindia. The present holder is Shah Madan Mohan Lal. An income of Rs. 43,000 is derived from six villages.

Nimwasa.—The Rathor Thakurs of Nimwasa were granted the estate by Mahadji Scindia. The present holder is Raghunath Singh who receives an income of Rs. 8,900 from three villages.

*Palwa.—An Audich Brahmin family, whose possession was recognised by Ranoji Scindia, were the founders of this estate. The present holder is Bharat Singh. The estate of seven villages has an income of Rs. 15,900 a year.

Kunghara.—Pilaji Kayastha received land from the Delhi Emperor. The present holder is Thakur Khusal Singh who has two villages with an income of Rs. 6,150.

Khedawda.—The village was granted to the Sisodia family of this estate by Mahadji Scindia. The present holder is Sawant Singh whose income from the estate is Rs. 7,700.

Nayan.—The present Thakur Rai Singh succeeded to the estate in 1900. His income, obtained from one village, is Rs. 3,000.

Nogaon.—The Thakur is a Rathor of the Ratan Singh got. The holding dates back to Mahadji Scindia's time. The present holder is Sher Singh, who succeeded in 1900. The income of the village is Rs. 3,800.

***Pachlana.**—The Rathods of Pachlana have held lands since the times of the Moghuls. The present holder is Sawant Singh who succeeded his brother Kishore Singh in 1922. His income is Rs. 20,000 from three villages.

Bhaisola.—The present holder, Anandi Lal, is a Sutar whose ancestor was cannon-founder and powder-maker to Mahadji Scindia. He succeeded in 1890 and the income of his estate is Rs. 3,600.

Kachhara.—The Thakur is a Jhala Rajput whose family has long been settled here. The present holder is Raghunath Singh who succeeded in 1925. An income of Rs. 3,300 is recieved from the village.

Makdawan.—The present holder is Thakur Donger Singh who enjoys an income of Rs. 9,500 from three villages.

Rignia.—The Thakurs are Rathors of the Fateh Singh got. Originally they held land from Indore, Dhar and Gwalior. Thakur Raj Singh succeeded in 1923. His estate has an income of Rs. 2,500.

***Bagli.**—The estate of Bagli was mainly held in Ijara by the Thakurs but has recently been turned into a jagir. The present holder is Thakur Sajjan Singh. The income of the estate is about Rs. 1,02,000.

Baraila (Sarwan).—The Thakur holds 455 bighas of land as Inami and the village (Baraila) for which he pays a Tanka of Rs. 500. The present holder is Mahendra Singh. The revenue of the estate from all sources is Rs. 3,200.

Bichraud I & II.—Thakur Amar Singh and Nag Singh are Chauhan Rajputs. Amar Singh holds no village, but Nag Singh has a half share in Bichraud village on Istamurari tenure. They receive certain cash payments, from Gwalior, Indore, and Dewas in the first case, and from Gwalior alone in the second case. Amar Singh died in 1933, and the succession of his son is under consideration. Their income is Rs. 2,700 and Rs. 960 respectively.

Datana.—Thakur Bhawani Singh, a Jadon Rajput of the Karauli family, receives a cash Tanka from Gwalior of Rs. 180. He succeeded in 1878.

Dabri.—Thakur Parwat Singh, a Khichi Chauhan connected with the Karaudia family, succeeded in 1885. The present holder is Thakur Gowardhan Singh. He receives a cash Tanka from Gwalior of Rs. 170.

Dhotria or Bhaisola.—Thakur Onkar Singh succeeded his father, Bhim Singh, in 1892. The Thakur holds the village of Pitlauda on Istamurari tenure. The revenue of the estate is about Rs. 3,000.

***Kaluheda.**—Rao Nahur Singh, a Khichi Chauhan, holds four villages with an income of about Rs. 21,800, inclusive of cash Tankas received from the Gwalior and Indore Durbars.

Sadan Khedi (Sheogarh).—Besides the village of Sadan Khedi, which he holds from Gwalior, the Thakur holds villages from Jaora, Ratlam, Sailana and Dewas (Junior Branch). The Thakur also holds the village of Rignia in Khachraud on Istamurari tenure.

The present holder is Kunwar Raj Singh. The revenue of the estate is Rs. 3,000.

Piplia.—Rawat Bhopal Singh is a Khichi Chauhan Rajput. His estate contains three villages and he has an income of Rs. 6,000 including payments made by the Gwalior and Indore Durbars.

Tappa.—Thakur Himmat Singh, a Sindhu Rajput, holds an estate of 12 villages with an income of Rs. 6,000 per annum. He succeeded in 1933.

Tonk.—Thakur Fateh Singh is a Chavada Rajput. He succeeded in 1910. He receives Tankas from Gwalior and Indore. The income is about Rs. 3,000.

Kharsi.—Rao Onkar Singh of Kharsi, a Rajput, holds no village but draws Tankas from Gwalior and Dewas. He was born in 1897 and succeeded his father in 1905. The income is Rs. 1,600.

***Narwar.**—Rao Madho Singh, a Jhala Rajput, born in 1896 succeeded in 1921. His estate comprises three villages in Gwalior and his income, including Tankas received from Gwalior, Indore and Dewas, amounts to Rs. 41,399.

Naugaon.—Thakur Onkar Singh is a Jadon Rajput. He was born in 1860 and succeeded in 1902. He holds no village but receives a small payment from Gwalior. The income is Rs. 114.

Patharia.—Thakur Madon Singh, a Chauhan Rajput, succeeded in 1938. His estate consists of two villages with an income of Rs. 5,400 from all sources including a Tanka received from Indore.

Kheri-Rajpura.—Thakur Balbhadra Singh is a Chauhan Rajput belonging to the Karaudia family. The estate of two villages has an income of Rs. 4,300.

SHAJAPUR DISTRICT

Arnia.—Thakur Zalim Singh, a Chauhan Rajput, is the present holder. The estate consists of four villages with an income of Rs. 4,200 including certain payments from the Gwalior and Bhopal Durbars.

Gundi.—The Rathors of Gundi obtained their land from the Delhi Emperor. The present holder is Rao Bhairon Singh. The income of the estate is Rs. 7,300.

***Tanodia.**—This estate has been held by a Rathor Thakur family since the days of Ranoji Scindia. They have now three villages on Istamurari tenure. The present holder is Sajjan Singh. The income of the estate is Rs. 12,100.

Bansakhedi.—This estate was granted to the family by the Delhi Emperor during Maharaja Daulat Rao's reign. The present holder is Jamil-ud-din. The income is Rs. 600.

***Badbeli.**—The ancestors of this family rendered important services in assisting European officers at Nimach during the Mutiny. Laxman Rao, the last holder, succeeded in 1915 and on his demise succession was granted to his widow for her lifetime. The income of the estate amounts to Rs. 18,600.

Pindhara Jagirs.—On the settlement of Malwa, Rajan Khan, foster brother of the notorious Chitu, was allowed an annual pension of Sonat Rs. 3,600. In 1816, this pension was commuted into an assignment of land for life. After his death the land was continued in jagir to his family. It consists of five villages split into four estates with an income of Rs. 11,000.

Jabaria Bhil.—(including Jabaria), is held by Mian Usuf Muhammed Khan who was born in 1875 ; Dugri by Hafiz Muhammed Khan, and Khajuri by Abdul Gaffar Khan and Sultan Muhammed Khan.

Sadan Khedi.—In 1865, on the death of Thakur Lal Singh, the Gwalior Durbar resumed the village of Sadan Khedi which the Thakur held from Maharaja Scindia, for his lifetime only. In 1879 it was regranted to Lal Singh's son, Mehtab Singh, who was succeeded by his son Jaswant Singh in 1898. The income is about Rs. 3,200.

Dharia Khedi.—In addition to the Tanka of Rs. 2,547-2-9 which the Thakur receives from Gwalior, he also receives Tankas from the Dewas and Bhopal Durbars. Thakur Sheodan Singh Bargujar was granted for life two villages on Istamurari tenure in Shujalpur pargana. The present holder is Rajendra Singh whose income is Rs. 6,800.

***Bardia (Barra).**—Rao Lal Singh, a Khichi Chauhan, is the present holder. He derives from his estate of three villages and certain payments made by the Gwalior, Indore, Dewas and Bhopal Durbars an income of about Rs. 15,000.

***Dhabla Dhir.**—In addition to the Tanka of Rs. 2,668-5-0 which the Thakur receives from Gwalior he is also in receipt of Tankas from the Indore, Dewas and Bhopal Durbars. Thakur Sobhag Singh was granted three villages in Shujalpur (Gwalior) in 1818. The present holder is Rao Bahadur Thakur Ishwari Singh who succeeded in 1907. The income is about Rs. 25,900.

***Dhabla Ghosi.**—In addition to the emolument he derives from Gwalior, the Thakur of Dhabla Ghosi receives Tankas from Dewas and Bhopal. The last holder was Thakur Chand Singh who died in 1934. The succession is under consideration and the estate is under the supervision of the Court of Wards. The income is about Rs. 11,000.

Karaudia.—Thakur Karan Singh, a Khichi Chauhan Rajput, is the present holder of the estate. The holding contains the villages of Karaudia (in Indore), and Kheria and a share in Kheri village in Gwalior with an income of about Rs.4,600 from all sources.

***Lalgarh.**—Dewan Dule Singh, a Chauhan Rajput, succeeded the estate in 1933. The estate consists of five villages lying in Gwalior and Indore and the income from all sources, including Tankas received from Gwalior, Indore and Dewas, is about Rs.16,000.

MANDSAUR DISTRICT

This district is largely populated by Sisodia Rajputs.

Chandrawats of Bhaugarh.—The Chandrawat Sisodias in this district are the members of the ruling family of Udaipur, being descendants of Chandra, second son of Maharana Jaya Singh. They hold between them 17 estates of which Kalukheda, Nadwel, Palashia, and Chiklana are the largest. The present holders of these estates are respectively Prahlad Singh, Sardul Singh, Mod Singh and Raghunath Singh. The estate of Kalukheda has an income of Rs.14,500 and includes three villages. Three more of the estates are each composed of one village, with incomes of Rs.12,500, Rs.4,000 and Rs.7,600 respectively.

***Bawal.**—This estate is held by a descendant of Gopal Singh, son of Sakat Singh, a younger brother of Maharana Pratap Singh of Udaipur. The present holder is Bhopal Singh. The estate comprises seven villages with an income of Rs. 11,000.

Gwalior Kalan.—This estate is held by a Saktavat Sisodia family. The last holder was Thakur Ramchandra Singh. The estate is under the supervision of the Court of Wards, and comprises ten villages with an income of Rs.2,150.

Naugaon.—The estate was founded during Mahadji Scindia's time. The present holder, Thakur Sajjan Singh, succeeded in 1911. The village has an income of Rs.3,000.

Sukheda.—It is said that the estate, which then included 213 villages, was granted in the 12th century by the Ghori rulers of Delhi to Kaluji, an ancestor of the present Thakur. The estate now comprises 21 villages; income from which amounts to Rs.57,150. The present holder is Daulat Singh, who succeeded in 1934.

***Athana.**—The holders are Chandrawat Sisodias, descending from Chonda, a son of Maharana Lakhaji of Udaipur, who made the original grant. The present holder is Thakur Bije Singh who also holds Sardari rank. His estate includes 42 villages with an income of Rs.29,000.

Sarwania.—The estate was granted originally by the Udaipur Chiefs to Mokham Singh, a Rawat Sisodia. The present holder is Laxman Singh. The estate has an income of Rs.7,900 and is under the supervision of the Court of Wards.

***Hatnara.**—Founded by Naro Nath Singh, a Rathor Rajput. It is asserted that at one time the family held possession of the lands which now comprise the States of Rutlam, Sailana and Sitamau. This village was granted by the Durbar for services rendered. The present Thakur is Mahtab Singh, who is a minor. The estate is under the supervision of the Court of Wards and has an income of Rs.15,500.

SARDARPUR DISTRICT

The principal landlords in this district are the Rathor Thakurs belonging to the Amjhera family. In the Mutiny the 11th Rao Bhaktawar Singh of Amjhera revolted and the district passed to Scindia in 1858. The largest of the family estates, which now number 21 in all, are described below :—

Chunapya.—The last holder of this estate was Nathu Singh Bhilala, who died in 1932 leaving a son named Indrajit Singh. The estate was originally granted to his ancestor who was a local Mandloi. It consists of 12 villages, income from which is Rs.4,500 approximately.

***Jamnia.**—The Bhumian holds from Gwalior five villages in addition to the villages which he holds from Dhar and Indore States. Raghunath Singh Bhumian is the present holder. The income is about Rs.24,500.

***Dattigaon.**—The Dattigaon family is descended from Chiman Singh, younger son of Rao Jasroop Singh of Amjhera. The estate, which is now under the supervision of the Court of Wards, comprises 59 villages with an income of about Rs.15,900. The last holder Daulat Singh has been temporarily disqualified from holding the estate on account of misconduct.

Chhadawad.—This family is descended from Rao Jagroop Singh of Amjhera. The present holder is Udai Singh who holds one village with a revenue of Rs.8,700.

Kherwa (Kalibaori).—The Bhumian has, in addition to his holding from Dhar, the village Kherwa from Gwalior. The present holder is Sumer Singh who succeeded in 1909. The revenue of the estate from all sources is about Rs. 1,300.

Balipur Chikli.—This family is descended from Devi Singh, son of Rao Ram Singh of Amjhera (2nd Rao). The estate split up in 1897 and was shared by three brothers, Dongar, Takhat and Fateh Singh. But in 1917 the Sanad of Jadid Usool for the whole estate was granted to Sher Singh, son of Dongar Singh. The estate consisting of two villages, has an income of about Rs. 9,300.

Nimkheda (Kunwad).—The Bhumian holds the village of Kunwad from Gwalior in addition to his holding from Dhar State. The present holder is Ganga Singh. The revenue of the estate from all sources is about Rs. 2,300.

***Mota Barkheda.**—The Bhumian holds five villages in the Gwalior pargana of Digthan. The present Bhumian Nain Singh succeeded in 1912. The income of the estate from all sources is about Rs. 26,000.

CHAUDHARI KANUNGOS

Throughout Gwalior State are many of the early district officials—Mandlois, Chaudharies, etc., whose families have long held positions of importance in their own locality. Many of these families were confirmed in their possessions by the Gwalior Rulers. The more important are :—

***Kharsod.**—An ancestor of the present holder was appointed Chaudhary by one of the Delhi Emperors. The family is of Audich Brahmin stock. The present Chaudhary is Ratan Singh. He holds Kharsaud in Barnagar pargana along with five other villages yielding an income of about Rs. 27,900.

Madawdi.—The family obtained the position during the time of Emperor Farukhshiar (1713). The present holder who possesses half share of this village, is Sunder Singh. The other half of the village is in the possession of Kishan Singh. The income amounts to about Rs. 5,200.

Mundra.—This family claims descent from Parmardi Deva (Parmal), the Chandel Rajput ruler of Bundelkhand from 1167 to 1202. Madan Mohan Chandel who lived at Badagaon in Bhilsa district, was the founder of this family. He was driven from his possessions in Aurangzeb's days, but one of his descendants, Surat Singh, became a Musalman and was appointed Chaudhari. Surat Singh, descendant of Kodar Mal, became a Hindu, but nevertheless in 1729 he received a sanad from the Emperor Muhammed Shah, granting him two villages. The present holder is Thakur Bhagwan Singh Chaudhary. An income of about Rs. 10,000 is received from two villages in Bhilsa district. Vishvanath Singh, the Chaudhary of Olinja in the same district, belongs to the same family.

Karnakhedi.—The family holds the estate under a sanad of Emperor Shahjahan dated 1636. The last Kanungo was Narain Singh. The estate consists of one village, with an income of about Rs. 7,800. It is under the supervision of the Court of Wards.

Khatakhedi.—The family states that its original grant was made in 1388. The estate now comprises Khatakhedi and other villages in Agar pargana with an income of about Rs.5,700. The present holder is Nathu Singh.

Bijrotha (Basoda pargana).—The family has been settled here from the days of Delhi Emperors. The present Kanungo is Mata Prasad, who succeeded in 1934. The estate with one village has an income of about Rs.500.

Sakwara Danola (Mungaoli pargana).—This family of Jain merchants received a sanad of Chaudhariship from Aurangzeb in 1665. The last holder was Randhir Singh, who held four villages with an income of about Rs.2,800 a year. The succession is under consideration.

***Sangool.**—The Chaudhariship is of long standing. The present holder, Thakur Prahlad Singh, possesses four villages with an income of about Rs.11,600.

* Denotes Jagirdars whose income is over Rs. 10,000.

APPENDIX V

CENSUS OF 1931

POPULATION IN DISTRICTS

District	Area sq. miles	Towns	Villages	Total persons	Urban	Rural	Males	Females
Gwalior State ..	26,367	43	10,852	3,523,070	395,309	3,127,761	1,867,031	1,656,039
Gird	1,712	6	783	364,806	131,027	233,779	197,935	166,871
Bhind	1,718	2	879	412,224	15,959	402,265	228,214	190,010
Morena	2,004	4	784	369,648	18,499	351,149	204,759	164,889
Sheopur	2,366	1	566	137,034	6,905	130,129	72,925	64,109
Shivpuri	2,876	5	1,300	401,586	24,382	377,204	211,555	190,031
Guna	4,477	6	1,902	421,311	31,385	389,926	221,556	199,755
Bhilsa	1,905	2	899	235,288	15,197	220,091	123,084	112,204
Ujjain	2,741	6	1,133	405,961	81,914	324,047	211,274	194,687
Mandsaur ..	1,777	5	947	272,166	41,113	231,053	140,333	131,833
Shajapur	2,460	3	1,064	336,980	20,207	316,773	174,985	161,995
Sardarpur ..	1,331	3	595	160,066	8,721	151,345	80,411	79,655

VARIATION OF POPULATION

Year	Population
1901	3,073,651
1911	3,235,303
1921	3,193,176
1931	3,523,070

The term "town" includes (*a*) every Municipality, (*b*) every Cantonment, (*c*) every collection of houses with not less than 5,000 inhabitants at the time the Census was taken.

The total number of towns and villages in Gwalior State is 10,895. The following tables show the distribution according to population :—

	Number	Persons
Under 500	9,331	1,703,192
500—1,000	1,083	742,206
1,000—2,000	371	500,270
2,000—5,000	87	239,640
5,000—10,000	13	92,964
10,000—20,000	7	80,900
20,000—50,000	1	21,999
50,000—100,000	2	132,459

POPULATION OF PRINCIPAL TOWNS

	Population
Lashkar City and Cantonment	86,767
Ujjain City and Cantonment	54,650
Ujjain City	53,779
Lashkar City	78,680
Gwalior	21,999
Morar and Cantonment	18,183
Mandsaur	15,386
Shivpuri	12,954
Guna	11,022
Bhilsa	10,570
Barnagar	10,531
Bhind	10,341
Agar	7,315
Chanderi	4,587

POPULATION BY RELIGION

	Total	Males	Females
All Religions	3,523,070	1,867,031	1,656,039
(1) Hindu	3,271,576	1,732,247	1,545,909
(*a*) Brahmanic	3,255,977	1,724,311	1,531,666
(*b*) Arya	1,308	688	620
(*c*) Hinduised Tribes	14,291	7,248	7,043
(2) Muslims	204,297	109,412	94,885
(3) Jains	45,079	24,238	20,841
(4) Christians	1,198	592	606
(5) Sikhs	681	446	235
(6) Zoroastrians	239	96	143

INFIRMITIES

The afflicted population numbers 8,593 of which 3,728 are males and 4,865 females; 453 persons are classed as insane, 1,306 deaf mutes, 6,409 persons blind and 425 lepers.

OCCUPATION

Total earners	1,535,701
Total working dependents	201,152
Total non-working dependents	1,786,217

LITERACY BY RELIGION

	Literate		Illiterate		Literate in English	
	Males	Females	Males	Females	Males	Females
All Religions	126,147	15,195	1,740,884	1,640,844	12,717	897
(1) Hindu—						
(a) Hindu (Brahmanic).	102,072	11,308	1,622,239	1,520,358	10,146	482
(b) Arya	235	44	453	576	50	10
(c) Hinduised Tribes ..	88	6	7,160	7,037	..	..
(2) Muslim	14,716	2,211	94,696	92,674	1,676	124
(3) Jain	8,480	1,147	15,758	19,694	535	23
(4) Christian	329	343	263	263	203	214
(5) Zoroastrian	86	113	10	30	76	40
(6) Sikh	141	23	305	212	31	4

In Lashkar City of 47,358 males 12,871 are literate and out of 39,409 females 1,965 are literate. The number of literates in English in males and females are respectively 3,455 and 232. In Ujjain of 30,597 males 9,530 are literate and 1,447 are literate in English. Out of 24,053 females 2,356 are literate while 278 are literate in English.

LANGUAGES

Western Hindi	2,298,274
Urdu	47,052
Rajasthani	960,976
Bhil dialects	75,469
Eastern Hindi	7,707
Gujerati	28,661
Marathi	21,535
Bengali	242
Punjabi	3,310
Tamil	279
Telugu	70
Persian	190
Arabic	255
English	228
German	2
Portuguese	14

	Caste, Tribe or Race	Population 1931	Population 1901	Proportion to the total population of the State (1931)
HINDU				
1	Ahir	1,30,682	1,08,715	.037
2	Ajna	9,773	17,615	.002
3	Bagri	23,209	3,261	.006
4	Baniya	87,750	86,714	.024
5	Bairagi	30,203	17,008	.008
6	Balai	97,828	70,926	.027
7	Banjara	19,731	5,259	.005
8	Basor	13,052	3,208	.003
9	Bhangi	27,405	23,225	.007
10	Bhat	7,425	9,788	.002
11	Bhil	86,571	41,248	.024
12	Bhilala	38,455	17,145	.010
13	Bhoi, Dhimar or Kahar	43,469	48,162	.012
14	Brahmin	2,96,049	3,09,940	.084
15	Chamar	4,15,950	3,19,517	.118
16	Chidar	8,876	4,653	.002
17	Chipa	10,486	8,999	.002
18	Darji	20,264	17,346	.005
19	Dhakar	30,945	17,162	.008
20	Dhobi	40,585	31,278	.011
21	Dholi	5,277	526	.001
22	Gadaria	87,741	73,930	.024
23	Ghosi	8,616	3,998	.002
24	Gujar	1,19,314	1,00,720	.033
25	Gosain	12,999	12,902	.003
26	Jat	23,941	24,639	.006
27	Jogi	7,232	5,467	.002
28	Joshi	6,330	5,110	.001
29	Kachchi	1,71,614	1,57,969	.048
30	Kalal	15,225	14,947	.004
31	Kandera	9,263	10,752	.002
32	Kayastha	33,926	28,999	.009
33	Khangar	17,100	10,403	.004
34	Khati	48,160	..	.013
35	Khatik	15,800	7,409	.004
36	Kerar	75,897	62,397	.021
37	Koli, Koshti	78,911	66,512	.022

VARIATIONS IN CASTE, TRIBE OR RACE SINCE 1901—*contd.*

Caste, Tribe or Race	Population 1931	Population 1901	Proportion to the total population of the State (1931)
HINDU—*contd.*			
38 Kurmi	47,577	21,982	.013
39 Kumhar	62,485	46,547	.017
40 Lodhi	91,773	73,070	.026
41 Lohar	30,146	21,917	.008
42 Mali	31,903	29,130	.009
43 Maratha	14,151	17,353	.004
44 Mina	67,125	61,274	.019
45 Mirdha	13,153	8,448	.003
46 Nai	54,373	57,474	.015
47 Rajput	3,93,076	2,97,051	.111
48 Rawat	16,397	31,082	.004
49 Sahariya	76,219	35,525	.021
50 Sondhiya	25,518	30,921	.007
51 Sonar	22,215	25,845	.006
52 Sutar	50	55,626	.000
53 Tamboli	7,422	8,773	.002
54 Teli	55,779	42,584	.015
MUSALMAN			
1 Bohra	8,944	5,110	.002
2 Faqir	11,178	4,800	.003
3 Mewati	8,820	..	.002
4 Pathan	57,628	47,623	.017
5 Pinjara	12,166	4,331	.003
6 Syed	10,780	12,004	.003
7 Shaikh	45,850	58,812	.014
EUROPEAN and ANGLO INDIAN			
1 Europeans	111	101	.00003
a British Subjects ..	101	61	.00003
b Others	10	40	.00003
2 Anglo-Indians ..	131	59	.00003

APPENDIX VI

PHYSICAL ASPECTS

GWALIOR State territories lie in several detached blocks between latitude 22° 5′ and 26°52′ N. and longitude 74°2′ and 79°12′ E. The total area is 26,397 square miles. The State's boundaries are formed by the Chambal River which flows on the north, north-west and north-east of the territory and separates it from the Agra and Etawah districts of the United Provinces, and the States of Dholpur, Karauli and Jaipur. On the east lie the U.P. districts of Jalaun and Jhansi, and Saugor of the Central Provinces. On the south are the States of Bhopal, Khilchipur and Raigarh, and the Sironj Pargana of Tonk. The States of Jhalawar, Tonk and Kotah lie on the west.

The Gwalior territories can be divided into two extensive sections: the Gwalior or northern territory, and the Malwa section. There is also an isolated area, Gangapur in Rajputana.

Physically, Gwalior territory falls easily into three natural divisions: the plain, the plateau and the hill tracts.

The plain constitutes the country to the north, east and west of the town of Gwalior, embracing the four districts of Gird, Bhind, Morena and Sheopur. It is only a few hundred feet above sea-level, the elevation of Gwalior being 697 ft., Morar 526 ft. and Sheopur 855 ft. The area of this plain is 5,884 square miles.

The plateau area can be said to begin about 80 miles south of Gwalior. The country rises rapidly till it reaches the level of the Malwa plateau, the average height being 1,500 ft. above sea-level. In this tract is about 70 per cent. of the total area of the State—17,856 square miles. A number of forest clad ridges break up this plateau, but in the main the country consists of wide, rolling downs of rich black soil dotted with flat-topped hills. Magnificent crops of wheat, grains, cotton and poppy are raised here.

The State's hilly tract occurs at the point where the plateau meets the Vindhyan range of hills. This is Sardarpur district, a medley of hill and valley, covered for the most part with thick jungle. The area is 1,301 square miles and the mean elevation 1,800 ft. above sea-level.

Climate

Gwalior State's climate varies according to the topographical character of the districts. The northern plains are subject to extremes of heat and cold, the *loo* winds from Rajputana making life in the capital oppressive during the hottest months. The Malwa plateau is more temperate. The cool nights of Malwa have long been famous. The annual rainfall ranges from 30 inches on the plateau to 40 inches on the plain.

Rivers

The main line of the Vindhyas marks the watershed, all streams flowing north or south from this range. The largest rivers lie to the north of it and flow towards the Ganges-Jumna system. The most important are the Chambal with its tributaries the Kali-Sind,

the Sipra and the western Parbati; the Betwa; and the Sind with its tributaries, the eastern Parbati, Pahuj and Kunwari. These rivers are very variable. In the rains they are roaring torrents, dwindling during the cold weather, and becoming either mere brooks or dry beds during the hot months. To make any use of them for irrigation, damming is necessary.

Several of these rivers have important historical associations. The Betwa was anciently known as the Vetravati and had on its banks the historic city of Bhilsa. The Sipra is one of the most sacred rivers in India. It flows past Ujjain where a great religious fair is held every twelfth year and attracts devout Hindus from all over India to have a dip in its sacred waters.

The Chambal, in ancient times the Charmavati, is the largest river touching Gwalior territory. In the rains its volume is liable to increase rapidly enough to cause serious floods.

Vegetation

The vegetation in Gwalior territory varies from the deciduous trees and shrubs of the northern plain to the teak and saj forests of the southern hills. In the plain many of the trees flower when leafless, or nearly so during the hot season. The principal species are: Bombax Malabaricum, Sterculia urens, Semecarpus Anarcardium, Acacia Arabica, A. Leucophloea and A. Catechu, Anogeissus latifolia, and A. pendula, Cordia Rothii, Phyllanthus Emblica, Erythrina suberosa and Gmelina arborea.

The forest on the lower hills to the south includes such species of shrubs as: Grewia, Zizyphus, Woodfordia, Casearia, Carissa, Capparis and Antidesma. The trees include Butea frondosa, Buchanania latifolia, Bassia latifolia, Diospyros tomentosa, Odina Wodier and Boswellia serrata. Bamboos are abundant in certain areas.

Forest typical of the Central India highland appears in the southern hills and includes, teak, saj (Terminalia tomentosa), and species such as Ougeinia, Dalbergia latifolia, Hardwickia, Cochlospermum, Schreibera and Soymida.

Animals

The wild animals of Gwalior State are typical of the varieties indigenous to peninsular India, the distribution of the larger classes depending on the cover available. In Malwa and in the country north and east of Gwalior where jungle is scanty such animals are rarely seen. In the country to the south and west, however, tiger and sambar are plentiful, and panthers are found in the hills which afford proper shelter and food supply. Nilgai and four horned antelopes are also found there. In the open plains of Malwa black buck and chinkara are common. Black bear are found in the hills. Jackal, foxes, wolves, wild dogs, pig and other small game occur in many parts.

Birds

Many classes of game birds, including the grey and pointed partridge, sand grouse, quail, bustard, floriken and green pigeon occur among the species found in State territories. There are several species of goose to be found among the tanks in the cold weather, which season also sees the arrival of such ducks as the pochard, mallard, pintail, godwal, widgeon, teal and others. Among waders are the great saras crane, snipe and a variety of others. Peafowl and the other species typical of Central India are to be found also.

An ornithological survey of the State made in 1938 by Mr. Salim Ali shows, however, that certain birds are in danger of extinction in Gwalior territory. He makes particular mention of the Great Indian Bustard, known in the State as Son Chiri or Hukna which, he states, "is one of the grand species that is most certainly on its way to rapid extinction unless active measures are enforced without delay to afford it adequate protection.

"It appears that in the not very remote past these birds were fairly plentiful, but that at present only isolated pairs may occasionally be met with. The Bustard is a large bird standing quite three feet to the top of its head, and vaguely reminiscent of an ostrich. As

it lives in open plains, country with sparse cultivation, it is a conspicuous object at a great distance and it is burdened with the added misfortune of being good to eat! Though ordinarily shy and unapproachable by predatory animals it falls an easy prey to man's strategy and cunning, and offering a large target is easily slaughtered. The bird is at a further disadvantage inasmuch as, unlike the partridge, it is a slow breeder usually laying but a single egg on the ground between August and November."

Mr. Salim Ali also points out that partridges, both Painted and Grey, and Bush Quails, though fairly abundant in some localities, are by no means in too secure a position. In certain areas they have been more or less completely wiped out owing to netting.

Fish

Gwalior territorial waters include Mahseer (in the Sipra, Kunoo, Sank, Assan, Parbati and Sind rivers where specimens up to 30 lb. have been caught); Labeo, Freshwater Sharks, Murral, Tengara, Mullet and Indian Trout.

Labeo include Rohu, Kalbans, Mirghal, and Naraina. Rohu is found in the Sank and Assan rivers; Kalbans abounds in the Assan; and Naraina and Mirghal are common in the Tigra dam and Pagara dam respectively.

Freshwater Sharks are tank inhabitants and occur in the Tigra and Pagara dams. The Murral is to be found in almost every river and reservoir.

Mullet is common in running water, and Indian Trout occurs in large numbers in the Kunoo and Sipra rivers. The Morar river has its own special variety.

Reptiles

Of the larger reptiles the short nosed Crocodilus perosus and the long nosed Gevealis Gangeticus are found. Tortoises and a number of varieties of iguana and lizard abound everywhere.

Snakes, which are not frequently seen, include among the venomous species the cobra, Russel's viper, the krait and the echnis carinata. Of innocuous snakes the dhaman, or rat snake, is common. Python are found in the thicker jungles and ghats.

APPENDIX VII

DISTRICTS, TEHSILS AND TAPPAS

GWALIOR State is divided into 11 Districts which are again sub-divided into Tehsils and Tappas. In 1937-38 the Durbar gave orders that to remove confusion caused by the traditional names of several Districts and Tehsils, the names should be changed to those of the towns in which the headquarters of their Subats and Tehsils were located. In the following list the former name is shown in brackets after the present name.

GIRD DISTRICT

TEHSILS

Gird
Pichhore
Bhander
Ghatigaon (formerly Mastura)

BHIND DISTRICT

TEHSILS

Bhind
Mehgaon
Lahar
Gohad

MORENA DISTRICT (formerly Tawargarh)

TEHSILS

Jaura
Ambah
Morena (formerly Nurabad)
Sabalgarh

SHEOPUR DISTRICT

TEHSILS

Sheopur
Bijeypur

SHIVPURI DISTRICT (formerly Narwar)

TEHSILS

Shivpuri
Kolaras
Pichhore
Karera

GUNA DISTRICT (formerly Esagarh)

TEHSILS

Pachhar
Guna (formerly Bajrangarh)
 Fatehgarh Tappa
Mungaoli
 Chanderi Tappa
Chachaura (formerly Kumbhraj)

BHILSA DISTRICT

TEHSILS

Bhilsa
Basoda
 Bhonrasa Tappa
 Shamshabad Tappa

UJJAIN DISTRICT

TEHSILS

Ujjain
Khachraud
Barnagar
Sonkach

SHAJAPUR DISTRICT

TEHSILS

Shajapur
 Sundersi Tappa
 Golana Tappa
Shujalpur
 Barodia Tappa
Agar
 Baroda Tappa
 Kanad
Susner
 Soyat Tappa

MANDSAUR DISTRICT

TEHSILS

Mandsaur
Nahargarh
 Runija Tappa
 Bhensodia
Nimach
Jawad
 Gangapur Tappa
 Singoli

SARDARPUR DISTRICT (formerly Amjhera)

TEHSILS

Manawar (formerly Bakaner)
 Bagh Tappa

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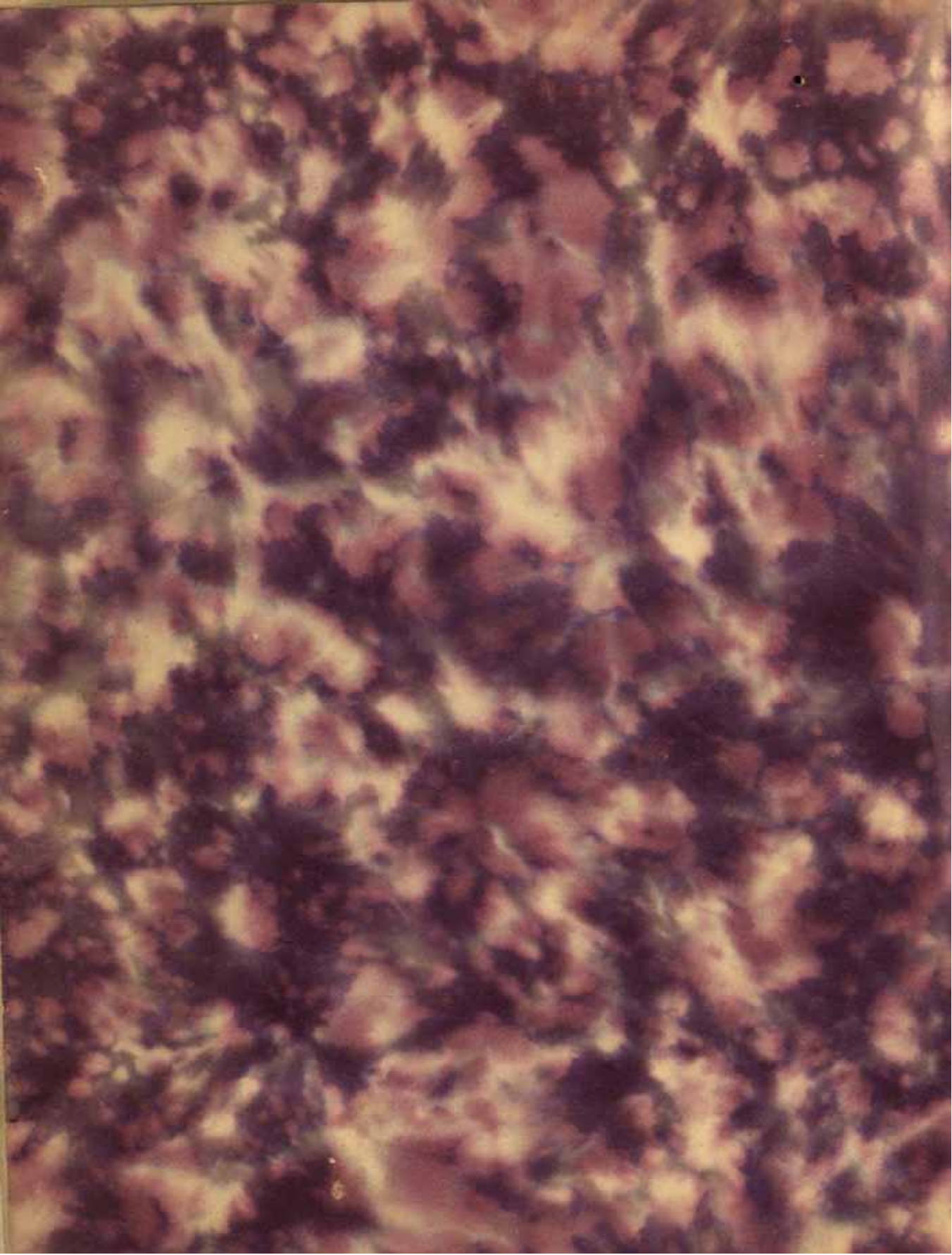
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